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W. KNOTT.

PRACTICAL OBSERVATIONS

ON THE

CHILD-BED FEVER,

AND THE

Acute Diſeaſes

IN GENERAL, MOST FATAL TO

W O M E N

During the State of PREGNANCY.

By JOHN LEAKE, M. D.

Member of the Royal College of PHYSICIANS, London; and Phyſician to the Weſtminſter Lying-In Hoſpital.

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By the following Letter, with which the Author was honored, A. D. 1775, *it appears that the ſubſequent Work is tranſlated into* French; *it has alſo been tranſlated into the German and other languages.*

Monſieur Monſieur *John Leake*, docteur en medicine, membre du collège royal des medicins de Londres, &c.

MAximâ cum voluptate et non ſine fructû, Vir illuſtriſſime, et ornatiſſime, tuum legi et relegi librum, cui titulus eſt: *Practical Obſervations on the Child-Bed Fever, Printed London* 1772. In illo enim reperi animadverſiones curioſas et plane novas de affectibus omenti, diſquiſitiones nitidas, et ſagaces, de curatione febris puerperium inſequentis, dubitationes quas dictarunt prudentia et moderatio, contra ſyſtema noſtri Celeberrimi *Levret*, cogitationes accuratas de hæmorrhagiis ante, et poſt partum. Quid Magis? in toto judicium et ſcientia veri boni que medici refulget. his itaque perpenſis, ſeu ægrorum ſalutem, ſeu artis medicæ incrementum proſpiciam, tuum librum cunctis gratiſſimum duxi; qua propter ut melius innoteſcat, hunc in idioma gallicum converto, jam ferme abſoluta eſt interpretatio; et paucos intra menſes, ſi tibi libet, prelo publico poterit in Franciâ committi.

Mihi familiaris et colendus amicus habet nunc ſub prelo tractatum idiomate Gallico ſcriptum de hæmorrhagiis uterinis. Plurimis abhinc menſibus auctori communicaveram verſionem tuæ ſectionis V.æ. *Of the nature and cauſe of uterine hæmorrhages, and their treatment, &c.* in hoc novo tractatu mei amici, multa ſunt de te excerpta cum laude tui ingenii et tui operis.

Auctor novi tractatûs, poſt expoſitionem variarum methodorum contra hæmorrhagias uteri, nil efficacius inveniit quam obturatio vaginæ cum Linteolis vel ſiccis, vel imbutis aceto, ſed profunde immiſſis. Hæc methodus olim vetuſtiſſimis nota, in oblivione quodam modo jacebat; ſed nunc reſurgit longâ et felici experientiâ ſtabilita; et enim introductio linteorum in vaginâ, dum ſiſtit ſanguinis fluxum, juvat quoque formationem coaguli; interim

interim uterus novas acquirit vires ; ſeſe conglomerat et conſtringit, contractionibuſque propellet coagulatum ſanguinem et linteola immiſſa ; ſed ut obturamentum vaginæ ſit ſemper ſauſtum, plurimæ ſunt adhibendæ cautiones : ſcilicet, mollis compreſſio uteri cum manú, applicatio ſupra pubem linteorum aquâ frigidâ, aut forſan melius aceto madidorum, uſus aeris frigidi, et, ut uno dicam verbo, quidquid poteſt juvare uteri contractiones et vaſorum ſauguinem fundentium clauſuram

Celeberrimus *Hoffman*, *Cornelius Trioen*, multique alii jam indicarant obturamentum vaginæ contra hæmorrhagias uteri ; hæc methodus tibi, Vir clariſſime non erat ignota ; attamen in praxi vix erat explorata. In curriculo menſis proximi, ut opinor, novus tractatus mei amici evulgabitur ; et in illo videre poteris ferme omnia quæ ſcripſiſti de opio, medicamentis aſtringentibus, venæ ſectione, &c.

Vale, Vir clariſſime ; et quanquam ſim extraneus, et nullo modo tibi notus, non dedigneris, quæſo. meam ſinceram admirationem.

Datum Divione die 21. 7bris. 1775.

FRANCISCUS CHAUSSIER.

Chirurgiæ magiſter in urbe Divionenſi apud Burgundos, acad. reg. chirurgiæ Pariſienſis correſpondens, &c.

P. S. Si velis mihi reſponſum dare. ſubjungo inſcriptionem epiſtolæ in idiomate gallico.

A Monſieur Monſieur Chauſſier. Maitre en Chirurgie, &c, a Dyon.

Dr. Leake's PUBLIC LECTURES

ON

MIDWIFERY, and the *Diſeaſes peculiar to Women and Children*,

Will commence, from Time to Time, as uſual, at his THEATRE in Craven-Street, LONDON, where Particulars may be known.

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INTRODUCTION.

P. S. The Reader is requested to correct such typographical Errors as have escaped the Author's Attention, in this and the former Volume.

INTRODUCTION.

IF thoſe Diſeaſes which have been found moſt dangerous and mortal in their effects, ought principally to be conſidered by phyſicians; none will more deſervedly claim their attention than the *Child-bed Fever*; as there is not, perhaps, any malady to which the human body is ſubject, where powerful remedies of every kind have been tried with more diligence and leſs ſucceſs. But, ſurely, this circumſtance, diſcouraging as it is, ſhould

not render them regardleſs of the event, but rather increaſe their ſolicitude for the patient's ſafety, and induce them to try new methods of cure, ſince thoſe hitherto adopted have ſo frequently failed.

Whilſt I was preparing the following ſheets for preſs, Dr. *Hulme* publiſhed a treatiſe on the ſame ſubject, the 29th of February 1772, where ſome points of doctrine being laid down as *new*, which I had repeatedly advanced, near three years before in my *public courſe of Lectures on Midwifery, and the Diſeaſes incident to Women*; I cannot, without injuſtice to myſelf on this occaſion, omit the mention of the following circumſtances, viz. That towards the end of the year 1769, and about the beginning of 1770, I attended ſeveral patients who laboured under the Child-bed Fever, both in private practice, and at the *Weſtminſter Lying-in Hoſpital*, in conſequence of being Phyſician to that charity.

As

As I gave *Lectures* on the *theory* and *practice* of *Midwifery*; I thought it my duty to communicate whatever I knew on that ſubject, to thoſe gentlemen who did me the honor to attend as *pupils*; and therefore, in conſequence of ſuch obſervations as the daily occurrence of different caſes, and frequent inſpection of morbid bodies afforded me at the *Hoſpital* and elſewhere, I took the liberty to advance the following particulars. Namely, that the *omentum* was the part principally affected, having generally found it either almoſt totally conſumed and melted down into a thick curd-like pus, or partially ſuppurated and inflamed; and that this inflammation had often overſpread the ſurface of the inteſtines. A large quantity of purulent, whey-colored fluid was alſo found in the cavity of the abdomen and pelvis, mixed with ſmall clots of blood and curd-like matter.

I alſo laid it down, as my opinion, that this fever was not occaſioned by a tranſlation, or abſorption of *corrupted milk* from the breaſts, or any obſtruction of the *putrid lochia*; alſo, that it was not owing to an *inflammation* of the *uterus*, or to a morbid affection of that organ, as generally believed and aſſerted by different authors; and therefore, that it ought to be referred to other cauſes, as a *Diſeaſe of a peculiar nature*, and diſtinct from all others. However, the conformity between that gentleman's writings and mine may be ſolely confined to a deſcription of the characteriſtic ſymptoms of the diſeaſe, and its morbid appearances after death; in both which, as nature is generally uniform and conſiſtent with herſelf, any two authors tranſcribing from the ſame original muſt neceſſarily agree. But in what relates to the cauſes and cure of the diſeaſe; ſo far from ſimilarity of opinion, no doctrines can be found more oppoſite or diſſimilar.

At

At the ſame time I took occaſion to mention an alteration of this article, in my *Syllabus of Lectures*, having, in a former impreſſion (with *Hoffman*) called it the *Uterine Fever*, but being afterwards convinced there was nothing ſtrictly uterine in that complaint; in the next impreſſion, A. D. 1771, I gave it the name of Acute Fever peculiar to Women after delivery.

I alſo from experience recommended *early* and *copious bleeding*, with the antiphlogiſtic method, in preference to every thing elſe I had ſeen tried in the cure; and as a confirmation of theſe facts, I appeal to the gentlemen whoſe names are ſubjoined, at the concluſion, who attended and took notes of the ſeveral public courſes of my Lectures, given in the three ſucceeding years 1770, 1771, and 1772; in which the ſeveral points of doctrine already mentioned, were circumſtantially and repeatedly laid down.

Being not a little ſolicitous for the recovery of the patients intruſted to my care,

I ſpared no pains in giving my attendance by every poſſible opportunity, and alſo had the ſatisfaction of meeting Dr. *James Ford*, a gentleman deſervedly eminent for his candor and ſkill, and one of the phyſicians of this hoſpital: But although we frequently conſulted what was beſt to be done, and tried various medicines and methods for their relief, our beſt endeavors to that end often proved ineffectual.

It grieved me to find that ſo many women died of this deſtructive Fever, but ſince there was reaſon to believe it was at firſt imperfectly underſtood, I ſtill had hopes that by time and obſervation, it might admit of more certainty in the cure, and become leſs formidable. I therefore, made it a rule to commit to paper the ſeveral ſymptoms and circumſtances in the order they occurred, and alſo, the daily and hourly changes which happened at different periods of the diſeaſe; as far as opportunity would allow me, either from

my

my own attendance on the ſick, or information of the *Matron*, or *Nurſes* in my abſence. I noted down their degree of violence and time of duration, as exactly as poſſible, and alſo, whether the patient became better or worſe, in conſequence of ſuch particular ſymptoms as appeared from time to time.

Theſe, the Reader may depend upon as ſo many *Facts*, or *clinical Minutes*, which I collected as materials for a Hiſtory of the diſeaſe, and as for the deductions or practical inferences ariſing from them, they are ſubmitted to the judgment and candor of the medical reader, as matter of opinion, to be confirmed or corrected, as they may be found to correſpond with obſervation and future experience.

The great variety of opinions prevailing among ſpeculative men, in what relates to the origin and cure of diſeaſes, is a convincing proof of the fallibility of the human mind. The ſubject of Phyſic is

attended with ſo many difficulties, that we frequently deal in probable conjectures rather than certain truths; and this will always be the caſe in every ſcience where ſo little can be decided by demonſtration and actual experiment, and where the reſt depends upon the caprice of our reaſoning faculties, which are ſo inſenſibly perverted, and as it were led captive by the early prejudices of education, and reigning cuſtom of countries; that things thus ſeen through different mediums, muſt neceſſarily ſtrike our ſenſes very differently, though in their own nature, they are uniformly the ſame.

Reſpecting the moſt powerful remedies, as *opium*, *mercury* and *bark*, ſuch is the oppoſition of ſentiments concerning their uſe, that one would almoſt be tempted to conclude, there was no true ſtandard, no leading and unerring principles, by which to determine, either the effect of medicines, or the nature and event of diſeaſes.

The

The diviſion of diſeaſes into *putrid* and *inflammatory*, however ſimple and neceſſary it may appear, has been productive of much diſſention and cavil among practitioners; but had they been leſs violent in contending about mere words, and more accurate in pointing out the true marks which conſtitute the difference in thoſe two claſſes of diſeaſe, they would have deſerved better of the profeſſion, and the public.

With ſome, almoſt every diſorder is ſuppoſed to be of the putrid kind; and therefore, Cordials, the Bark, and other antiſeptics are directed as the ſovereign remedies; and he that ſhould venture to direct bleeding, would run the riſque of being called an executioner, rather than a phyſician. On the other hand, many in our own country, but eſpecially in *France*, and the warmer climates, look upon moſt Diſeaſes as inflammatory, and ſuppoſe, that nothing is ſo requiſite and effectual in their

their cure, as Bleeding, Evacuations, and plentiful Dilution; and the methods recommended by the former, in the very ſame ſort of caſes, are deemed no better than rank poiſons. Where Men are thus enſlaved by cuſtom, or actuated by blind zeal, they often err in violent extremes, and aſſert their opinions with as much confidence as if there was not even a poſſibility of being miſtaken; but, what is ſtill worſe, they ſometimes reflect on one another in terms the moſt illiberal and unjuſtifiable, to the diſcredit of the Profeſſion, and the injury of each other's reputation.

Which way are we to turn, where rocks lie on one ſide, and quick-ſands on the other?

Nothing has been ſo great an obſtacle to the improvement of ſcience, as the partiality, and obſequious regard, which men have been apt pay great authorities; for whilſt they diſregard the teſtimony of their own ſenſes, and weakly or indolently aſſent

assent to things as right, on the credit of others, they are seldom at much trouble to examine whether they are really so or not; and errors early adopted, are either reluctantly corrected, or at last, take such total possession of the mind, that they become habitual, and are retained ever after.

Much respect is certainly due to all such Authors as have set down with candor and truth, whatever they knew in the cure of diseases; but very often, instead of plain facts, the Reader is presented with such a medley of reality and fiction, partly from books; the Author's imagination, and the disease itself; that when he has perused the whole, he is as much at a loss as ever how to proceed in practice.

Of late, indeed, medical writers have happily withdrawn themselves from the Fairy-land of hypothesis and conjecture; and, instead of deviating from the solid path of nature, as many of them had formerly

merly done, are now principally guided by obſervation and practical experience.

Thoſe who mean to get uſeful knowledge, will therefore do well to take their information from the living body, by every opportunity of attending the ſick; this will be going to the fountain-head, and reading, as it were, from the ample volume of Nature itſelf; where the true ſtate of diſeaſe will more clearly unfold itſelf to the diligent obſerver; the effects of medicine will be better known, and the methods of cure, from thence, become more certain and conſiſtent.

In the hiſtory of a diſeaſe, the ſeveral ſymptoms ought to be ſet down with ſimplicity and clearneſs, exactly as they preſent themſelves, without any innovation, conjecture, or falſe coloring; which, having nothing to do with reality, would corrupt and adulterate the whole, and render it a mere recital of opinions and ſurmiſes, rather than a genuine deſcription of the diſ-

eaſe

eaſe itſelf. A diſtinction ſhould alſo be made between ſuch ſymptoms as uniformly appear in the beginning, and are, as it were the immediate offſpring of the diſeaſe; and thoſe which are only occaſioned by difference of conſtitution, age, climate, or errors in diet: The firſt ought to be conſidered as the true and inſeparable *pathognomonic ſigns*, which denote its nature and tendency, and from which the indication of cure is chiefly to be taken; the laſt, only as accidental changes not ſo much to be regarded.

The ſtate of the air, together with the patient's age, and habit of body, ſhould be mentioned; and the effect of medicines adminiſtered at different times, whether good or bad, ſhould alſo be faithfully and candidly ſet down, and diſtinguiſhed from the ſymptoms of diſeaſe, or the ſimple efforts of nature; which, happily for the patient, are ſometimes ſuch as ſurmount every obſtacle to a cure.

An

An accurate examination of the affected parts after death, by leading to the ſeat of diſeaſe, alſo tends to perfect its hiſtory, and aſſiſt in throwing light on the cure; and this will always be moſt neceſſary in dangerous and uncommon caſes, where powerful medicines have been tried in vain. By attending to thoſe morbid appearances, which have an intimate relation to ſuch ſymptoms as were imperfectly underſtood, we proceed from effects to their cauſes, which could never be done with ſo much certainty by regarding the ſigns of the diſeaſe only. For inſtance, it did not appear obvious from the ſymptoms of *Child-bed Fever*, that the *omentum*, rather than the *uterus* or *inteſtines*, was the part principally affected.

But although opening of bodies may afford much information, falſe inferences have often been made from them; for, all ſuch *morbid appearances*, as there is reaſon to believe did not exiſt till long after the

invaſion of the diſeaſe, ought to be looked upon as ſo many conſequences, and not the cauſes of it.

The ſeat of diſeaſes is often apparent, tho' their cauſes are frequently too remote for the diſcovery of the moſt acute and accurate obſerver. But notwithſtanding many changes are produced in the living body, for which no adequate or ſatisfactory reaſon can be aſſigned, there are ſome certain appearances which almoſt uniformly ſucceed one another. For inſtance, pain, from whatever cauſe it may ariſe, if violent, will produce ſpaſm, fever, or inflammation; and theſe are often followed by ſome critical evacuation, which is ſalutary; or where that is wanting, by abſceſs or gangrene, which falling on the vital parts, will render the diſeaſe incurable. This has often been the caſe in the *Child-bed Fever*, and therefore, ſuch an unfavourable termination ought, if poſſible, to be prevented by evacuations,

cuations, and the adminiſtration of medicines tending to carry off the morbid cauſe by ſome of the natural ſecretions.

Sydenham has obſerved, that the fever which follows a ſuppreſſion of *lochia*, ſometimes changed its type to that which prevailed in the epidemical ſeaſon.

That women after delivery, are more diſpoſed to fever at one time than another, according to the conſtitution of the air, cannot be doubted; conſidering its great influence on valetudinary habits, and diſeaſes in general; but particularly the *ſmall-pox*, *epidemical dyſentery*, and *ulcerated ſore throat*, which not only become more frequent, but alſo more fatal, as the air changes from a healthy to a malignant ſtate.

The great plague in *London*, A. D. 1636, which laſted twelve years, was more or leſs fatal at different periods; viz. in eight years, one with another, two thouſand

ſand people died yearly, and never leſs than eight hundred in one year; which ſhews that the contagion and its mortal effects, depended as much upon the ſtate of air, as on the diſeaſe itſelf. This circumſtance is ſtill more clearly proved by the great diſproportion of deaths in different weeks; the number in one week increaſing from one hundred and eighteen, to nine hundred and twenty-ſeven in the next; and in another, decreaſing from nine hundred and ninety-three, to two hundred and fifty-eight; and from that number, again increaſing, in the very next week, to eight hundred and fifty-two.*

How diſeaſes are prodcued or influenced by the obvious qualities of air, is difficult to determine, notwithſtanding all that has been ſaid on the effects of heat and cold, moiſture and dryneſs, or the winds blowing from particular quarters at certain ſea-

C ſons,

* Vide *Grant* on the Bills of Mortality.

ſons, with different degrees of violence: ſeeing, that very ſudden changes of weather, from one extreme to another, frequently happen, without producing any diſeaſes of the malignant or epidemic kind. In like manner, a defect in the natural ſecretions, violent paſſions of mind, or errors in diet, at one time occaſion fever and not at another; which evidently ſhew that the firſt cauſe of diſeaſes, whatever it is, acts more or leſs powerfully, as the natural temperament of body concurs to increaſe or diminiſh its effects.

In the year 1746, during the winter ſeaſon, a diſeaſe of the epidemical kind was obſerved to prevail with great violence among lying-in women.* It began with a *diarrhœa*, followed by pains in the abdomen; the *lochia* did not appear at their due time, and the belly became hard, tenſe, and painful; the head was alſo affected with pain, and

* Acad. des Sciences l'an. 1746, in 4to. Mem. p. 160.

and ſometimes a cough attended: About the third or fourth day after delivery, the breaſts which uſually about that time were filled with milk, became flaccid, and about the fifth or ſeventh day the patient frequently died.

Poor women delivered in Hoſpitals, were obſerved moſt ſubject to this diſeaſe; and in the month of *February* it became ſo extremely dangerous and epidemical, that ſcarcely one in twenty eſcaped it.

When the bodies of the deceaſed were opened, we are told, that *coagulum lactis* was found adhering to the exterior ſurface of the inteſtines, and *ſerum lacteum* contained in the abdomen. In ſome, the ſame kind of fluid was collected in the cavity of the breaſt. The *ſtomach*, *inteſtines* and *uterus*, had undergone inflammation; and in many, the *ovaria* appeared diſeaſed and ſuppurated.

The diſeaſe here mentioned ſeems to have been occaſioned by a morbid affec-

tion of the *uterus*; and therefore, may be conſidered as very different from that hereafter to be deſcribed.

If the deaths of child-bed women depended upon the ſame cauſes as thoſe which proved mortal in the ſmall-pox, dyſentery, and reigning fevers of the ſeaſon, as there was great reaſon to ſuppoſe; this circumſtance could never have been ſo truly known as by examining the *Bills of Mortality*, and remarking how far the deaths under the article *Child-bed* kept pace with thoſe ariſing from the above diſeaſes. But theſe bills are regulated with ſo little care and exactneſs, either in reſpect to the diſeaſes themſelves, or numbers ſaid to die of them; that it would, from thence, be extremely difficult to determine this matter in a ſatisfactory manner. The yearly bills would by no means be ſufficient to do it; becauſe although a greater than uſual number might die in the epidemic ſeaſon; in the ſubſequent months,

months, which make up the year, and which generally prove more healthy, the proportion of deaths might chance to be leſs; which, upon the whole, taking one year with another, would occaſion but very little difference. I therefore regularly procured the weekly Bills of mortality, during the whole time of the *Child-bed Fever*, in order to aſcertain this matter more exactly.

In the months of *January*, *February* and beginning of *March*, the diſeaſe prevailed with uncommon violence, and was evidently *epidemical* in different parts of the town; although on comparing the number of deaths occaſioned by it, with thoſe ariſing from the *epidemics* of the ſeaſon; I did not find that correſpondence which at firſt I expected. However the great difference in the number of women who died in the year 1770, compared with that of the preceding year 1769, or the ſubſequent year 1771, ſufficiently and clearly proves

that this fever was epidemical in the firſt: The number of deaths in the yearly bills of mortality for the cities of *London* and *Weſtminſter*, under this article, were as follows: From December the 13th, 1768, to December the 12th, 1769, died in Childbed, *one hundred and eighty-five.* From December the 12th, 1769, to December the 11th, 1770, died, *two hundred and ſeventy*; and from December the 11th, 1770, to December the 10th, 1771, died, *one hundred and ſeventy-two.* So that in the year 1770, compared with the other two, the number of deaths was very near a *third part* more; and as this increaſe of number did not happen uniformly, throughout the year, but was chiefly brought about in that half of it, which commenced with December, and ended with May; it is ſtill more evident, that it could ariſe from no other cauſe than a malignant conſtitution of the air.

But

But altho' it was proper and neceſſary to mention the bills of mortality as a ſtandard to which the reader might be referred; if I might be allowed to form a conjecture of the mortality of this diſeaſe, by what occurred to me, as well as ſeveral others of the profeſſion, with whom I frequently converſed on the ſubject; I ſhould have no doubt, but, at leaſt, half as many more women died of it, as thoſe mentioned in the bills of mortality; which inſtead of being ſet down under the article *Child-bed Fever*, were indiſcriminately placed to the account of *flux*, *pleuriſy*, or ſome other diſorder.

It is a public misfortune that thoſe bills ſtill continue to be kept in ſuch a manner as to defeat their original intention, and to render all calculation in this matter vague and indeterminate.

Some years ago, an application was made to parliament by the company of pariſh clerks, ſetting forth the neceſſity of

keeping an exact regiſter of *births*, *burials*, and *marriages*, in all the pariſhes throughout England; inſtead of the preſent one including *chriſtenings* and *burials* only, as confined to the pariſhes within the bills of mortality for the cities of *London* and *Weſtminſter*. Had this application been duly attended to, and ſupported by parliament; many great and obvious advantages would have been the conſequences of it; for the healthy or unhealthy ſtate of the air at particular times and places, might from thence have been more exactly aſcertained; as well as the increaſe of population, in which the ſtrength of every nation conſiſts.

HISTORY

HISTORY

OF THE

CHILD-BED FEVER.

SECTION I.

History of Child-bed Fever deduced from the Symptoms of that Disease, taken from the living Body, and an Examination of its morbid Appearances after Death.

AS it is evident that women, after delivery, are more subject to fevers during a distemperature of the air; I have, previous to the history of this disease, subjoined a short account of the weather, with a view to shew how far the symptoms might be increased or abated by its influence,

influence, during thoſe months in which it was found moſt *epidemical.*

Air is ſo eſſential to the exiſtence of all animals, that the want of it only for a few minutes is deſtructive to life. It not only acts conſtantly on the ſurface of their bodies by its preſſure, but is alſo continually taken into the lungs by reſpiration; and therefore, it is no wonder the health ſhould be ſo variouſly affected by it, as its qualities are changed and become more or leſs ſalutary. The diſeaſes which are *endemial* in particular countries, depend principally upon this circumſtance; but human bodies being alſo affected by intemperance, and the paſſions of the mind; thoſe acute diſtempers which ſometimes rage, for a time, with uncommon violence, among brute animals living in the open fields, and in a ſtate of nature, are more evident proofs of its powerful influence. The firſt ſhews that the atmoſphere of particular places, is at all times more or leſs unwholſome;

unwholſome ; the laſt, that the atmoſphere in general, may become ſo for a time, from variety of natural cauſes which notwithſtanding are ſo obſcure, that they would ſcarcely be known to exiſt, was it not for their effects *.

A ſhort account of the weather from October 1769, to the end of May, 1770.

The month of October commenced with fine clear weather, the wind in moderate breezes being chiefly at N. N. E. From the 5th to the 8th, it was bleak and cold, with ſome rain. From the 9th to the 13th, the days were clear and froſty, with foggy nights and mornings; the wind being firſt weſterly, and afterwards ſhifting from W. to E. and then to E. N. E. From thence, to the 25th, moiſt and mild weather, the wind being variable ; a day or two of froſt then

* Here, it is only a tribute due to merit, to apprize the reader of many curious and intereſting diſcoveries on the properties of different kinds of *air*, lately publiſhed by the ingenious Dr. *Prieſtley*.

then ſucceeded, and the month ended with miſling rain and mild weather.

November began with mild weather, and ſome ſmart ſhowers; till the 8th it was warm, moiſt and gloomy, the wind being chiefly at S. S. W; the remainder of the month was extremely variable, the nights being froſty and the days ſometimes clear and bright, and at other times overcaſt with clouds, attended with miſling rain; the wind ſhifting to all points of the compaſs, but chiefly to W. S. W.

December commenced with froſty clear days and foggy nights, the wind being variable; to the 8th, the weather in general was clear, but ſometimes foggy with miſling rain, the wind being then chiefly at S. and E. S. E. with continual tranſitions from one extreme to another, viz. from a clear froſty air to cloudy damp weather with miſling rain; and towards the end, froſt with ſleet and ſnow; the wind to the

22d being moſtly at W. and S. S. W. and afterwards it blowed from the N. to the N. N. W.

January began with moiſt weather, and a thick atmoſphere till the 4th, on which day there was a fall of ſnow, the wind being chiefly at W. N. W. and N. N. W to the 11th, ſmart froſty weather, with large quantities of ſnow, the wind at N. N. E. and N. N. W. From thence to the 17th, it was fair and rainy, bright and foggy by turns; on the 18th, a cold froſt began, with a large fall of ſnow, the wind at N. E; from thence to the 28th, mild, but variable, the wind being chiefly at S. or W. S. W. with moiſt gloomy weather, which concluded the month.

February began with fine weather, which continued to the 6th, the wind chiefly at S. W. from thence to the 8th, ſhowers of rain and ſnow, with a froſt, and the wind at N. To the 17th, changeable moiſt weather, the winds chiefly at S. or S. W.

On

On the 18th, alternate ſhowers of hail, ſnow and rain; from thence to the 22d, variable; to the 25th, cold and bleak, with froſt and ſome ſnow; the wind being ſtationary at N. N. E; to the end, the weather was cold, moiſt and cloudy, and the wind chiefly at S. W. and S.

March commenced with moiſt hazy weather, and a mild temperature of the air, with gleams of ſun-ſhine, which continued to the 7th; the wind continually ſhifting. To the 14th, it was cold and gloomy, with conſiderable quantities of rain, the wind chiefly at N. E; from thence to the 29th, ſharp froſt, with ſevere cold winds, and alternately, large falls of ſnow, and ſhowers of ſleet and hail; the wind chiefly at E. N. E. This month ended with thaw and ſome rain, the wind then blowing from the ſouth.

April began with rainy weather, and heavy ſhowers of hail and ſleet, the wind chiefly at W. and W. S. W; from the 8th

to

to the 14th, cold, bleak, wet weather, with more ſnow and hail, the wind being ſtationary at N. N. E; from thence to the 20th, fine weather, but ſhowery; the wind at W. and W. S. W. This month concluded with ſevere wet weather.

May commenced with exceſſive cold rainy weather, and frequent ſhowers of ſnow and hail, the wind at N. N. E. and N. N. W. From the 4th to the 8th, it changed to the S. and W. S. W. with cold heavy rains; from thence to the 16th, the weather in general was fine, with ſome thunder ſhowers; to the 25th, cold, unſettled weather, and towards the end of the month, it was moiſt and hazy, the wind being at E. N. E.

Hippocrates obſerves, that a mild rainy winter ſucceeded by northerly winds in the ſpring, was dangerous to pregnant women*. Agreeable to this obſervation in the winter months, when the Child-bed Fever

* De Aëre Locis et Aquis.

Fever began, the weather was obſerved to be remarkably mild and moiſt, with a warmer temperature of air than was natural to the ſeaſon; and this was ſucceeded by cold, bleak winds in the ſpring, which were very unfriendly both to animals and vegetables.

About the 14th of March, 1770, a ſharp froſt commenced, with large falls of ſnow, and alternate ſhowers of ſleet and hail, the wind being at North-eaſt: This weather, which was uncommonly ſevere, laſted till near the end of the month, at which time the malignant force of the Child-bed Fever ſeemed to abate; for altho' ſeveral women were affected with it at the *Hoſpital*, ſoon after that time; only two of them died, namely, *Ann Simms*, who was ſeized with it before the froſt began, and *Ann Deuſe*, who died the 29th of the ſame month, juſt at the commencement of thaw. The attack of the cold fit was leſs violent, and the ſubſequent febrile ſymptoms much

more

more mild and favorable. The pulſe was neither ſo quick or weak, nor was the ſickneſs and vomiting ſo great; and inſtead of being followed as uſual, with pains in the bowels and griping bilious ſtools, the diarrhæa was moderate; the pulſe roſe in ſtrength, and a warm ſweat frequently broke out all over the body. Beſides, the ſecretion of milk was ſeldom interrupted, but continued plentiful; which, in general, may be looked upon as a favorable ſign; at leaſt, it ſhews that the violence of the diſeaſe, in ſuch caſes, is not ſo great as to take it away.

The Hiſtory of a diſeaſe will always be moſt perfect, where ſo little has been done by art, that the operations of nature remain free and undiſturbed. I ſhall therefore deſcribe this Acute Fever peculiar to women, after delivery, as it appeared when only aſſiſted by medicines of the ſimpleſt kind.

When the quickneſs of pulſe brought on by the efforts of labor does not afterwards

ſoon go off; it denotes ſomething amiſs in the habit, tending to kindle up a fever, which will always be found more dangerous, the ſooner it invades the patient.

The *Child-bed Fever* generally commenced about the evening of the ſecond, or beginning of the third day after delivery, with a *rigor* or ſhivering fit. Sometimes it came on ſooner, and though rarely, has been known to appear as late as the fifth or ſixth day.

In many women, the attack was ſudden, without any apparent cauſe or preceding indiſpoſition; and ſoon followed by headache, reſtleſſneſs, great ſickneſs at ſtomach, and bilious vomitings.

Some had a bitter taſte in the mouth; a nauſea and univerſal langour; the countenance at firſt was pale, and often much altered, with a lifeleſs, dim ſtate of the eyes, and an indolent pain over their orbits. Theſe ſymptoms would ſometimes foretel the approach of the diſeaſe, even before any

any coldneſs or ſhivering was perceived; but upon the whole, they may be conſidered as *anomalous*, for in general, the ſhivering preceded; and allowing for the difference of age and habit of body, there are perhaps few diſeaſes where the ſigns more regularly ſucceeded each other, or where the morbid appearances after death, were found more exactly the ſame.

Now and then, this Fever ſeemed to be brought on by *taking cold*, or *errors in diet*, but much oftener by *anxiety* of *mind*; and therefore, women of delicate conſtitutions, very ſuſceptible and continually agitated by hopes and fears, are, of all others, the moſt ſubject to it, and recover with the greateſt difficulty; conſequently, unmarried women, for obvious reaſons, were moſt apt to be ſeized with it.

The degree of the cold fit was very different in different women; in ſome, it would laſt near an hour, and was ſo intenſely violent as to ſhake the body like

an ague; others were only affected with a kind of thrilling ſenſation, or temporary chillneſs on the ſkin, which ſoon went off and returned by irregular periods.

When the fit laſted long and was violent, I obſerved great anxiety and oppreſſion at the breaſt, attended with a laborious reſpiration, but without pain; the patient was often affected with deep ſighing, and complained of great weight at the heart.

In thoſe who were young and of a ſtrong habit, altho' the *rigor* was violent, its duration was ſometimes ſhort; and when the pulſe roſe in ſtrength and fulneſs, and became leſs frequent, it was ſucceeded by a better ſtate of countenance, and the oppreſſion was ſooner removed from the *præcordia*; altho' no eruption appeared on the breaſt or body, as I at firſt expected, till experience taught me otherwiſe.

In ſuch caſes, which unfortunately occurred but ſeldom, an univerſal glow was diffuſed over the whole ſurface of body; the

the ſkin began to be more florid, and a free perſpiration came on with manifeſt relief, altho' it was not always laſting.

On the contrary; thoſe who were ſlightly attacked in the beginning, often had a return of the febrile acceſſion, and were alternately hot and cold throughout the day, eſpecially if the pulſe did not riſe, but continued quick and weak. In ſuch, the fever did not ſeem to run high; the tongue being very little altered from its natural ſtate, nay, ſometimes it was even moiſt and ſoft, and the thirſt very inconſiderable; yet, in the end, they did not eſcape much better than others where it was more violent.

Thoſe of lax fibres and of an irritable, hyſterical habit, were oftenеſt thus affected; or where the conſtitution was much weakened by anxiety of mind, or a preceding bad ſtate of health.

Sometimes the thirſt was great, tho' the tongue had generally a better appearance

in the beginning than is common in other fevers, for it was ſeldom black or very foul; but as the diſeaſe advanced, became white and dry, with an increaſe of thirſt, and at laſt was harſh and of a browniſh color towards the root, where it was coated with inſpiſſated, yellowiſh mucus.

That perſpiration which proved ſalutary, overſpread the whole body, attended with moiſture of the tongue and fauces, and alſo with abatement of thirſt, ſickneſs, and head-ache; but on the contrary, where the ſweats were confined to the breaſt, neck, and face, tho' they often continued to the laſt, I never could obſerve the leaſt mitigation of the ſymptoms; ſuch partial ſweats being the very effect of weakneſs and febrile anxiety, and not owing to any critical efforts of nature.

So great and ſudden was the loſs of ſtrength, that very few of the patients were able to turn in bed without aſſiſtance, even ſo early as the firſt or ſecond day after the attack;

attack; and moſt of them continued helpleſs throughout the whole progreſs of the diſeaſe.

In the cold fit the pulſe was quick and ſmall, and the pulſations ſo feeble and indiſtinct, that ſometimes I was hardly able to number them exactly. When the hot fit came on, tho' it was then more full and diſtinct, it ſtill remained quick, but was ſeldom hard or ſtrong, except in few inſtances, where the patient was young and plethoric. In general, it would beat from *ninety* to *one hundred* and *thirty-ſeven* ſtrokes in a minute; varying by turns in ſtrength and frequency from the loweſt to the higheſt of theſe numbers, and *vice verſa*, in proportion to the ſtrength or weakneſs of the habit, and violence of the attack. An exceſs or defect of the natural ſecretions, the ſtate of mind, with many other accidental cauſes, will be found to produce great alteration in the pulſe, both in reſpect to its ſtrength and quickneſs.

The ſympathy between the head and ſtomach is ſo great, that it is ſometimes difficult to diſtinguiſh which of them is firſt affected; but in this diſeaſe, the head-ache generally preceded the ſickneſs at ſtomach; where the laſt was great, the patient vomited ſpontaneouſly; otherwiſe, the nauſea continued till a purging began, and then uſually ceaſed. The laſt was always moſt violent when nothing had previouſly been rejected by vomit.

It is here neceſſary, to diſtinguiſh this febrile head-ache, from that which very commonly happens at the coming of milk, when the body is coſtive; the firſt may be relieved by a gentle emetic, the laſt may be effectually taken away by cathartic clyſters and laxatives.

The firſt attack of this fever is ſometimes ſo violent, that in many reſpects, it reſembles the *cholera morbus*; for the pain, ſickneſs, and burning heat in the ſtomach

ſtomach and bowels, are almoſt the ſame; and the bile, in great profuſion, is diſcharged upwards and downwards; tho' in the firſt, the pulſe is more quick and weak.

The fluid rejected by the ſtomach was yellow and ropy, and ſeemed to be a mixture of bile with large quantities of gaſtric mucus; ſometimes it was green and porraceous, but when the vomiting continued till the advanced ſtate of the diſeaſe, or returned towards the end; it was then watery and of a *blackiſh color.*

The ſickneſs at ſtomach was always much relieved by vomiting; but when that abated, a violent purging came on, with ſevere gripings and pain in the bowels.

The vomiting attending this fever, ſhould always be diſtinguiſhed from that which often accompanies a quick labor from the violent efforts of the uterus; the laſt is not bilious, and ſoon goes off after delivery,

delivery, without any bad conſequence or ſubſequent fever.

At the beginning of the diarrhæa, the ſtools were yellow, frothy, and mixed with mucus; ſometimes they were greeniſh, but towards the end of the diſeaſe, at which time they often became involuntary, they were blackiſh, fœtid, and more dilute, reſembling the color of *moſs water*.

I never ſaw this fever appear with any degree of violence, but it was always attended with an obſtinate diarrhæa; many of the patients had eight or ten evacuations in ſix or eight hours, which were followed by ſhort intervals of eaſe; but neither the quickneſs of pulſe, thirſt, nor any of the febrile ſymptoms were in the leaſt abated by the diſcharge, altho' it was ſo frequent and profuſe.

In ſhort, the diarrhæa was evidently *ſymptomatic*, and only procured a reſpite from pain by evacuating the offending bile;

bile: It depended ſo very much upon the fever, that whenever it obſtinately continued, the diarrhæa remained unconquerable; and even altho' that ſeemed to abate for a time, as in the caſe of *Juliana Thompſon*; it often came on again with violence, and ſo continued till the patient's death, whenever there was a return of the febrile acceſſion.

Here, the diarrhæa ſeemed plainly to ariſe from the effect of fever, which increaſes the irritability of all the abdominal viſcera, and renders them more liable to pain and inflammation. The immoderate ſecretion of bile, was alſo manifeſtly the effect, and not the cauſe of fever; which from its acrimony and redundance increaſed the purging, by ſtimulating the inteſtines to expel their contents. On the contrary, when the pulſe abated in frequency, and the inflammatory ſymptoms ſubſided; the purging was proportionally leſs, and even when it continued longer than

than uſual, it was not then attended with the ſame loſs of ſtrength, but appeared ſimply colliquative.

About the ſecond day after the cold fit, the patient complained much of pain at the pit of her ſtomach, darting down towards the navel, and ſometimes from thence to the ſhort ribs and ſides: Now and then, as the diſeaſe advanced, ſome had acute pain under the ſhoulder-blade, which ſtruck obliquely downwards and forwards, from the thorax to the ſtomach; theſe pains were always moſt violent and intolerable during inſpiration, which became interrupted and deſultory, or in theſe other words, they breathed with difficulty and as it were by jirks. Some had a cough, which generally was moſt troubleſome in the decline of the diſeaſe.

In ſeveral, the belly began to ſwell about the third or fourth day, from the commencement of the fever, and became extremely tenſe and prominent, as in the caſe of

of *Juliana Thompſon* and *Margaret Walker*, both of whom died. Whenever this ſwelling came on whilſt the purging continued, and eſpecially if it cloſely followed the pain, extending from the ſtomach to the navel; as far as I had an opportunity to obſerve, it was always a *mortal ſign*; for not one of them recovered who were thus affected.

This morbid enlargement and tenſion of the abdomen ſupervening the pain at the umbilical region, ſhould however be diſtinguiſhed from the accidental ſwelling of the belly from the confinement of air in the inteſtines, which ſometimes happens by a ſudden ceſſation of the purging; and which will ſoon go off without danger by the uſe of laxative medicines.

About this period of the diſeaſe, the patient had a wild, diſtreſſed, eager countenance, and a trembling hand; a local *crimſon color* appeared in her cheeks; her lips were of a *livid hue*, and her noſtrils tenſe

tenſe and expanded. When theſe ſymptoms prevailed with violence, neither art nor nature were ſufficient to procure relief.

The Lochia from firſt to laſt, were not obſtructed nor deficient in quantity, neither did the quality of this diſcharge ſeem to be in the leaſt altered from its natural ſtate; a preſumption that the *uterus* was not at all affected. Of this circumſtance I was convinced, by making conſiderable preſſure above the *pubes* with my hand, which did not occaſion pain; but when the ſame degree of preſſure was applied higher, between the ſtomach and umbilical region, it became intolerable.

Hence it appears, that the *uterus is not originally affected*, ſo as to produce this fever, neither does it uſually ſuffer by ſympathy, in proportion with the other parts, as will be more evidently ſhewn hereafter.

The ſecretion of Milk was generally interrupted by the attack of the cold fit, and ſometimes

ſometimes it was almoſt taken away; at other times it continued in a moderate degree for ſeveral days after, even 'till within a ſhort time of the patient's death.

A ſlight chillneſs uſually precedes the coming of milk, which is often miſtaken for that morbid ſhivering with which this fever commences; but with a little care, it will not be difficult to diſtinguiſh the one from the other; for, the firſt happens before the milk is collected, and is uſually followed by a plentiful flow of it; but the laſt, generally comes on after a ſecretion of that fluid is begun, which not unfrequently afterwards carries it off. From miſtakes of this kind, I have ſometimes been called in where there was no occaſion; for when the diſeaſe was rife, and many died, the leaſt appearance of it was very alarming to child-bed women, and thoſe about them. Indeed, when a ſlight degree of this morbid ſhivering comes on exactly at the time of the milk-

fever,

fever, a very good judge might then be miſtaken; but a due attention to the nature and violence of the ſymptoms which ſpeedily follow, will ſoon ſet him right.

Now and then there was a little difficulty in making water, but this was merely an accidental ſymptom, and not peculiar to the diſeaſe; for it often happens after laborious caſes, where the neck of the bladder is ſlightly injured.

The urine was ſmaller in quantity than uſual; when cold, it was generally reddiſh and high coloured at the beginning of the diſeaſe, and often without the leaſt ſeparation or ſediment; but as it advanced, there was ſometimes a whitiſh cloud in it, which floated near the ſurface, and when more crude and denſe, ſunk towards the bottom. It was alſo now and then of a whey-color, with a whitiſh oily pellicle on the top, and when it depoſited ſediment, it was generally chalky and not lateritious. But the appearance of urine was continually varying,

varying, and afforded very little information in the cure; for in ſome of thoſe where the ſediment was copious, though the bark was immediately adminiſtered, the fever returned and the patient died.

They had very little appetite for food, and no profound, natural reſt; their ſlumbers being diſturbed by frequent moaning and ſtartings; when they waked they ſeem'd confuſed, and not in the leaſt refreſhed; they generally ſlept with the mouth half open, and their eyes were imperfectly cloſed.

A perfect *criſis* ſeldom ever happened in this fever; it takes ſuch ſevere hold of the conſtitution at its firſt onſet, that the vital powers languiſh, and are unable to produce that ſalutary event. Indeed, the ſuppuration of the *omentum*, may be looked upon as a critical abſceſs, though of the unfavorable kind; for it ſeems to be an unſucceſsful endeavour of nature to free herſelf from the morbid cauſe; but, wanting ſufficient ſtrength to throw it to the ſur-

face of the body, it falls upon the interior parts eſſential to life, and therefore unavoidably becomes mortal.

Sometimes there was a manifeſt remiſſion of the ſymptoms, but where that was not attended with univerſal ſweat, or copious diſcharge of turbid urine, it was ſeldom laſting; in ſhort, when the ſecretions are only partially promoted, the criſis is imperfect, and the patient is ſubject to relapſe.

Some of thoſe who ſurvived, recovered very ſlowly, and were affected with wandering pains and paralytic numbneſs of the limbs, like that of chronic rheumatiſm. Some had critical abſceſſes in the muſcular parts of the body, which were a long time in coming to ſuppuration, and when broke, diſcharged ſanious ichor; as in the caſe of *Elizabeth Walters*. Others were affected by a ſlow remitting fever, with great loſs of ſtrength and dejection of ſpirits; and ſeveral were ſo helpleſs and enervated, that they had

had involuntary ſtools a conſiderable time after the dangerous ſymptoms were over.

When the diſeaſe proved mortal, the patient generally died on the 10th or eleventh day from the attack: The longeſt I have known any one ſurvive, was *Juliana Thompſon*, who lived fifteen days; and the ſhorteſt time of being cut off, was in the caſe of *Harriot Truman*, who lived only five days. Moſt of them had the clear and diſtinct uſe of their ſenſes to the laſt, and generally expired calmly, without any apparent agony or convulſive ſtruggle.

As they became more and more exhauſted, and within a few hours of death; the pulſe, which was exceedingly quick, and almoſt imperceptibly weak, at laſt was inſenſibly loſt in a tremulous flutter.

Many authors, particularly the celebrated *Baron Van Swieten*, and *Levret*, ſuppoſed this fever was occaſioned by *metaſtaſis*, from morbid tranſlation of corrupted milk, or

putrid obſtructed lochia, to the brain, or contents of the thorax and abdomen; which there produced ſuch diſeaſes as were peculiar to thoſe parts, viz. head-ache, vertigo and delirium in the firſt; and in the two laſt, inflammation of the lungs, or pleura; nauſea and vomitings, with a diarrhæa and pain in the bowels. Others again with *Hoffman*, imagine that it ariſes chiefly from inflammation of the *uterus*.

Theſe have generally been aſſented to, as the moſt probable cauſes hitherto aſſigned, yet it will appear from the following obſervations, they are very exceptionable and inadequate, and not conſiſtent with the true nature of the diſeaſe.

To quote a multitude of authors for no other reaſon than ſhewing their errors, would not only be uſeleſs but invidious: I ſhall therefore only conſider the doctrine of thoſe reſpectable modern writers already mentioned; and the more particularly,

larly, as their opinions, at this time principally prevail, and have in a manner ſuperceded all the reſt.

That the ſeveral circumſtances which are ſuppoſed to relate to the cauſe of this diſeaſe may become more apparent; it will be neceſſary to conſider when, and in what manner, the *milk* is ſtrained off in the breaſts, and what are its qualities when pure, or vitiated; and alſo to attend to the nature of the *lochial diſcharge*.

About the third day after delivery, the patient is reſtleſs, and complains of a cold, thrilling ſenſation towards the back and loins, ſucceeded by feveriſh heat; the face becomes florid, the pulſe more full and frequent, and at laſt the breaſts begin to throb and enlarge, by what is uſually called the coming of milk. This ſlight commotion, or milk fever, which ſeems to ariſe from a change of circulation, is generally terminated in the ſpace of twenty-four hours, by a warm critical ſweat; or if the

milk is ſuddenly repelled by diarrhæa, in conſequence of which, the febrile ſymptoms gradually go off.

Van Swieten ſuppoſes, that this fever is alſo partly owing to abſorption of *lochia*, which about this time becomes purulent.

Where milk thus ſecreted is not vitiated by feveriſh heat of the body, or corrupted by remaining too long in the breaſts, it may be abſorbed and taken into the blood without any bad conſequence; for milk being nothing but *chyle* exalted and rendered finer by paſſing through the glands of the breaſts, and being the proper nouriſhment of all animals, it will eaſily mix with, and be aſſimilated into *blood*; and ſince every woman after delivery cannot ſuckle her child; Nature has ſo formed the lactiferous organs as to diſpoſe of milk in this manner, when pure, without injury to the conſtitution.

If ever therefore, the *Child-bed Fever* is occaſioned by a reflux of milk, that can only

only happen after it has been deprived of its balſamic quality, by too great a degree of animal heat, or ſtagnating too long in its veſſels: Whereas, this diſeaſe is ſometimes ſo ſuddenly produced, and attended with ſuch remarkable and inſtantaneous loſs of ſtrength, as appears by a hiſtory of the ſymptoms, that there is great reaſon to believe its firſt impreſſion is made upon the nerves, or vital powers of the body; and that there is neither ſufficient time for the ſecretion of milk, or any morbid change of that fluid.

Levret obſerves, that this tranſlation of milky matter uſually happens, about a fortnight after the diſappearance of milk*; and *Van Swieten* aſſerts, that experience confirms this obſervation †. But could it only be ſatisfactorily proved, that ſuch tranſlation of vitiated milk never happen-

* L'art des Accouch. p. 150.

† *Van Swieten*, Commentar. in Her. Boerhaav. Aphor. Vol. iv. p. 610.

ed earlier than the time above mentioned; it would then ſufficiently refute the opinion of thoſe, who ſuppoſe it the principal cauſe of the diſeaſe in queſtion; ſince I believe, no inſtance can be produced where it came on ſo late as the fourteenth day; for, notwithſtanding what *Hippocrates* mentions concerning the wife of *Philinus*, who was ſeized with *rigor* on the fourteenth day after delivery, followed with obſtruction of *lochia*; her caſe does not appear to have been truly ſimilar to that under conſideration; a rigor being common to other fevers as well as that peculiar to Child-bed Women, and the lochia not being obſtructed in this diſeaſe.

It cannot be doubted but *milk*, may become depraved by various cauſes. Eating or drinking things which are improper; expoſing the body to cold air; the exceſſes of anger or fear, will often diſturb this ſecretion, and occaſion milk to ſtagnate too long in the breaſts; hence its natural qualities

qualities may be changed, ſo as to render it pernicious ; and conſequently, if it ſhould be re-aſſumed into the maſs of blood in this vitiated ſtate, it will diſorder the body, and create fever, which however in general, is ſoon carried off by ſome critical evacuation ; as *diarrhœa*, or *miliary eruption*. But being too long retained in the lactiferous ducts, it much oftener brings on abſceſs of the breaſt itſelf. Such a fever, therefore, is very eſſentially different from that under conſideration ; the firſt being infinitely more mild in its ſymptoms, and for the moſt part void of danger, for I never yet knew one die in conſequence of it.

Levret alſo has obſerved, that were the milk ſuddenly diſappeared at the beginning of the diſeaſe, and afterward ſoon returned, the patient was relieved. But, whenever this circumſtance happens with mitigation of the ſymptoms, there is reaſon to believe it is owing to a ceſſation of the febrile cauſe which

which no longer interrupts the ſecretion of that fluid, and which, therefore will naturally return.

When the breaſts ſubſide, and the milk gradually goes off, or is ſuddenly repelled, in thoſe who do not intend to ſuckle; the *lochial diſcharge* may be obſerved to increaſe and become more freſh and ſanguineous; and alſo continues a longer time than in thoſe who do. It therefore appears, that at this time, a plethora prevails in the conſtitution, which may fall upon the interior veſſels, when the milk does not freely paſs through the glands of the breaſts; or even ſhould no milk be ſtrained off, the want of it will diſpoſe the habit to a plethoric ſtate. For this reaſon, women who do not ſuckle, are viſited with a return of the menſes, even ſometimes ſo early as in the fifth week after delivery; whereas, in thoſe who give ſuck, they are naturally wanting for ſeveral months.

Hence

Hence alſo it is manifeſt, that the female organs, after a certain age, are ſo diſpoſed as to prepare a larger quantity of blood than is neceſſary for the ſupport and nouriſhment of the body; which in the time of uterine geſtation, is conſumed by the fœtus, and after delivery, by the child at the breaſt; but that this redundant quantity might not incommode the conſtitution, during the time ſhe is not pregnant; provident nature has ordered it off by the veſſels of the uterus, once every month.

The milk indeed, is not ſtrained off from the blood; but as the ſeparation of that fluid deprives the woman's body of ſo much *chyle*, which would otherwiſe be converted into blood; the conſequence, in reſpect to her general habit, or the fulneſs of the veſſels, will be exactly the ſame.

Preſuming therefore, that *ſuckling* after delivery, would leſſen the tendency to inflammation and fever, by diminiſhing the fulneſs of the uterine veſſels, as well as thoſe

of

of the contiguous viſcera; an order which had formerly been made by the governors of the *Weſtminſter Lying-in Hoſpital*, at my requeſt; that every patient during her ſtay in the houſe, ſhould ſuckle her child, was at this time, more particularly inſiſted upon. For if the diſeaſe was occaſioned by tranſlation of milk to the interior parts; it would then follow, that women who had plenty of that fluid, and in whom it was freely diſcharged by ſuckling, would of all others, be the leaſt ſubject to it; but even this caution was inſufficient to ſecure them from the fever; for many who had plenty of milk, and ſuckled their children, were alſo invaded by it.

But to come to *Practical facts*: In many women, there was a plentiful ſecretion of milk, which continued till the fever was conſiderably advanced, and ſometimes it laſted 'till within a day or two of their death; in ſome few, where the milk was either ſmall in quantity, or totally defi-

cient,

cient, no ſuch fever appeared; and in thoſe caſes where it did, it generally came on before there was any want of milk; which therefore, was evidently the *effect*, and not the *cauſe* of that diſeaſe.

Beſides; if this fever was owing to a tranſlation of milk from the breaſts, it would alſo frequently happen to women who wean their children at the end of ſeven or eight months, which is contrary to experience. The caſe mentioned by *Van Swieten*, of ſuch a morbid abſorption of that fluid, in a woman a whole year after delivery, in whoſe pelvis, *milky matter* was found, only proves what poſſibly may, and not what uſually happens.

Indeed from the moſt careful examination of the morbid appearances, in the ſeveral bodies which were opened, I have the greateſt reaſon to believe, that what has uſually been taken for *coagulated milk*, lying on the ſurface of the inteſtines, is nothing but *pure matter*; owing to the ſuppuration

puration of the *omentum*, and therefore, of a peculiar kind; having a more white, thick and *curd like appearance*, than that of common matter. As to what is called *ſerum lactis*, it ſeems to be only a purulent whey-coloured fluid, collected in the cavity of the *abdomen*, by *morbid tranſudation* from the inflamed *viſcera*; or *lymph* become putrid by ſtagnating too long there, from a defect in the abſorbing power of the lymphatic veſſels.

The next principal cauſe aſſigned for the production of this fever, is *obſtruction* of *lochia*, and a morbid tranſlation of that putrid fluid to the internal parts.

A due attention to the nature of that diſcharge from the *uterus* called *lochia*, which is the natural conſequence of delivery, will be moſt likely to diſcover whether it can have any ſhare in producing this fever or not.

As ſoon as a child is born, the *placenta*, which during pregnancy, ſerved as a medium

dium of intercourſe between the mother and it, then becomes a lifeleſs maſs without circulation or further uſe; and therefore, is ſoon afterwards expelled by the gradual contraction of the womb. As the ſeparation of this vaſcular cake from the womb, is obſerved to be more eaſy at the end of nine months, than in thoſe caſes where the birth is premature; this animal proceſs may with reaſon be ſuppoſed analogous to the dropping off of ripe fruit from a tree.

The *lochia* therefore, is nothing more than a ſimple diſcharge from all thoſe veſſels which are torn aſunder by the ſeparation of the *placenta* from the *uterus*, and does not naturally partake of a ſanious or malignant quality, as generally ſuppoſed; for all the circumſtances attending it, exactly correſpond with what is obſerved to happen after receiving a freſh wound in any part of the body; conſequently *pure blood* will firſt eſcape from thoſe ruptured veſſels, and afterwards a more dilute and colorleſs

lorleſs fluid, like the *ſerum.* About the third or fourth day the diſcharge generally becomes ſlightly purulent, and the *uterus* contracts, and returns to its unimpregnated ſtate, the orifices of the ſeveral veſſels are gradually cloſed, and the *lochia* totally ceaſe.

Dr. *Hunter*, by whoſe reſearches, anatomical knowledge has been ſo much improved, was the firſt who diſcovered that the exterior membrane of the bag containing the child, called *falſe chorion*, is derived from the *uterus*; and as it peels off from thence like a kind of *exuviæ*, or ſlough, at each ſucceeding birth, he gives it the name of *membrana decidua.*

By means of the lochial diſcharge, the internal ſurface of the *uterus* is freed from the putrid remains of the falſe chorion, which diſſolves and comes away in a fluid ſtate; and ſince there is nothing in its quality but what is common to the digeſtion of a freſh wound; it is not rational to ſuppoſe

poſe it can produce a fever ſo deſtructive to child-bearing women, even allowing it to be obſtructed.

I have often obſerved the *lochia* ſmall in quantity, and at other times redundant, without any bad conſequence: This ſeems chiefly to depend upon the difference of habit in different women, and the lax or tenſe ſtate of the uterine fibres; ſo that the indication of danger is not to be taken from the quantity of diſcharge, but from the nature of the ſymptoms attending it; and where there is no pain, inflammation, or fever, in the firſt caſe, or loſs of ſtrength in the laſt; it would be highly improper to direct medicines either to reſtrain or promote it.

Beſides this error of preſcribing remedies where none are neceſſary; there is another ſo prevailing in practice, and ſo pernicious in itſelf, that it deſerves to be remarked, viz. that of giving *emmenagogue* or uterine medicines, as they are call'd, to promote the *lochia*;

for thoſe being chiefly of the heating kind, as *aloes* and the *pulv. e. myrrh. c.* or elſe ſuch as act by their powerful effluvia, as *aſſafœtid. caſtor*, and the like, are ſo far from being proper where there is obſtruction of this diſcharge, that they are manifeſtly injurious, and would be as dangerous to the patient, under ſuch circumſtances, as forcing medicines given in nephritic caſes, during the height of pain and inflammation. In ſhort, all irritating medicines are improper, in every painful or inflammatory affection of the *uterus*, and are therefore to be rejected in favor of gentle evacuations, plentiful dilution, and cooling regimen.

When the *lochial diſcharge* becomes fœtid, it has generally been looked upon as a dangerous ſign; but as this often happens without any bad conſequence, I am inclined to think, it is rather owing to the admiſſion of air, into the cavity of the *uterus* and the corruption of grumous blood contained there, than to any putrid diſpoſition

in

in the habit of body; however, it will certainly be right to promote the diſcharge of ſuch confined *ſordes*, as ſoon as poſſible; which may be effectually done, by the gentle alternate preſſure of the hands applied to the region of the *uterus*, according to the method laid down by *Duſſe*.*

Ruyſch ſuppoſed that the fluid found in the *abdomen*, like the waſhings of fleſh, or corrupted *lochia*, was ſqueezed from the *uterus*, through the *Fallopian tubes*;† but in all thoſe who were opened I never ſaw the leaſt quantity of ſuch fluid in the *uterus*, nor could obſerve any thing to favor ſo improbable a conjecture.

When the *uterus* was laid open, it had, at firſt view, the appearance of a part diſpoſed to become *gangrenous*; but this was owing to a conſiderable quantity of *membrana decidua* or falſe chorion, adhering to its internal ſurface; for when I had

* Acad. des Science, l'an. 1724, hiſt. p. 51.

† Obſervat. Anatom. No. 84. p. 79.

wiped away this mortified ſlough with a wet ſponge, it was perfectly ſound and in its natural ſtate. In the caſe of *Ann Simms* the *os uteri* was ſomewhat livid and blackiſh, but as her labor was difficult, this was probably owing to the violence ſuſtained, and not to any tendency in the diſeaſe itſelf to produce ſuch effect; for, notwithſtanding the diſcoloration of the part, it did not manifeſt the leaſt degree of putrid diſſolution, but preſerved its coheſion and natural firmneſs. It therefore becomes neceſſary, not to regard any appearance as morbid, which ariſes from accidental cauſes, or ſuch as are in themſelves ſtrictly natural.

The fever brought on by *inflammation* of the *uterus*, has often been confounded with Child-Bed Fever: but thoſe diſeaſes are very eſſentially different, although they both require the ſame method of treatment.

When

When the uterus is inflamed, it ſometimes becomes gangrenous; the head is affected with pain, *delirium* uſually attends the fever, and the uterine region is ſo exquiſitely ſenſible, as to render the gentleſt preſſure intolerable: But on the contrary, in Child-bed Fever, the head is ſeldom diſordered, the *uterus* is not affected with pain, inflammation, or gangrene, nor doth *delirium* uſually attend.

Beſides theſe general ſigns of an *inflamed uterus*, there are others more fully mentioned by *Ætius* than any other writer, which particularly point out the affected parts. When the *fundus uteri* is inflamed, there is great heat, throbbing, and pain above the *pubes*; if its poſterior part, the pain is more confined to the loins and *rectum*, with *teneſmus*; if its anterior part, it ſhoots from thence towards the neck of the bladder, and is attended with frequent irritation to make water, which is voided

with difficulty; and if its ſides or the *ovaria* are affected, the pains will then dart to the inſide of the thighs.

Inflammation of the *uterus*, which often ariſes from a greater degree of violence applied to this part than its natural ſtructure can bear, will generally bring on obſtruction of the *lochia*; and on the other hand, obſtruction of *lochia* may produce inflammation of the *uterus*; but although ſuch a local affection may create fever; it ſeldom proves mortal, without the inflammation is violent, and terminates in gangrene. In the firſt caſe, the orifices of the veſſels opening into its cavity, are ſhut up, conſequently the diſcharge will be obſtructed, and not return till the tenſion is removed by *bleeding*, *laxatives*, and *plentiful dilution*; in the laſt, they are ſuppoſed to be conſtricted, and therefore, *opiates* and the *warm bath*, with emollient clyſters will be moſt likely to afford relief.

SECTION.

SECTION II.

Practical Obſervations and Inferences ariſing from the Hiſtory of the Diſeaſe, reſpecting its Nature and Cauſe; with the Methods moſt conducive to its Cure.

THE ſudden change produced in the habit, by the effect of delivery, and that alteration in the courſe of blood, which muſt neceſſarily happen from the contraction of the *uterus*, ſeem to be the principal reaſons why the abdominal viſcera, are at this time ſo liable to *inflammation*.

When the preſſure of the gravid uterus is ſuddenly taken off from the *aorta deſcendens*, after delivery; the reſiſtance to the impulſe of blood paſſing through all the veſſels derived from it, and diſtributed to the contiguous viſcera, will be conſiderably leſſened; it will therefore ruſh into thoſe veſſels with a ſuperior force, and by put-

ting them violently on the ſtretch, may occaſion pain, inflammation and fever; particularly in the *omentum* and *inteſtines*, where they are numerous and moſt yielding; and this is more probable, becauſe thoſe arteries, before they enter the viſcera, are diveſted of their ſtrong, external coat.

That ſuch a change of circulation actually happens is manifeſt from thoſe faintings which ſometimes follow ſudden delivery; for, when the long continued preſſure of the uterus is removed; the blood by guſhing into the inferior veſſels, will for a time, deprive the heart and brain of their uſual quantity.

This contraction of the womb, alſo renders its veſſels impervious to that blood which before paſſed freely through them for the ſervice of the child during pregnancy; and conſequently a much larger quantity will be thrown upon the contiguous parts, which will ſtill add to their diſtention,

tion, and increaſe their tendency to inflammation; more particularly as the womb is abundantly ſupplied with blood, and receives a greater quantity of veſſels in proportion to its bulk, than other parts of the body.

The immoderate ſecretion of *bile*, which commences about this time, in Child-bed Fever, moſt probably ariſes from the ſame cauſe; for, as the *vena portæ ventralis*, which brings blood to the liver, is rooted in the inteſtines, it will neceſſarily receive from thence a larger ſupply than before; hence a more copious ſecretion, as it is univerſally allowed, that the quantity of fluid ſtrained off in any gland, will always be in proportion to the quantity and velocity of blood paſſing through it.

It therefore appears, that although this fever is attended with a preternatural ſecretion of bile, it ought not to be conſidered as one of the bilious kind; for the great redundancy of that fluid ſeems truely

ſymptomatic

ſymptomatic, like that occaſioned by pain and ſpaſm in the nephritic colic, or other painful affections of the abdominal viſcera.

At the attack of this fever, the veſſels on the ſurface of the body, during the cold fit, are exceedingly conſtricted, as is evident from the paleneſs of the ſkin; and from this cauſe alſo, a greater quantity of blood is driven to the internal veſſels, which will ſtill further increaſe the quantity of *redundant bile*. Agreeable to this obſervation, the bilious vomiting was generally moſt violent after the ſhivering fit, or in proportion as that was more or leſs; and even when it was abated, a return of the cold fit would often bring it on again, as well as the *diarrhœa*.

From this two fold change in the circulation, the veſſels of the heart and lungs will alſo receive more blood than before; hence difficulty of breathing, with anxiety and oppreſſion at the breaſt, and *præcordia*, which are all relieved by the approach of the

the *hot-fit*; that is, as ſoon as the heart re-acts and throws its blood from the centre to the circumference of the body; and when this cannot be effected, from its want of ſufficient power; the blood will ſtagnate in its large contiguous veſſels, and the patient will ſuddenly expire. Inſtances of this ſort, though rare, have been known to happen, particularly in the cold fit of an ague, where the attack was uncommonly violent, or in diſeaſes of the very deſtructive kind.

It therefore may be affirmed, that in general, every degree of *rigor* is followed by fever proportionate to it, from the re-action of the heart, which will always be greater or leſs according to the force impreſſed upon it by effect of the cold fit; ſo that when it is violent and of long duration, the conſequence is much to be feared; eſpecially as nature, by the febrile ſtruggle, does not uſually in this diſeaſe bring on a *ſalutary criſis*. As the heart now acts ſtrongly,

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the *momentum* of blood on the ſolids will be greatly increaſed, and occaſion tenſion, pain, and inflammation, which, if not ſoon removed, will end in ſuppuration of the internal parts, and produce a *collection of matter* in the cavity of the *abdomen*, from which it cannot be evacuated, and therefore inevitably muſt become mortal.

If the preceding reaſoning be right, it will ſhew the neceſſity of attempting to diminiſh the cold fit, by the plentiful uſe of diluting fluids given warm; and alſo of hot applications to the extremities and ſurface of the body, to relax the cutaneous veſſels, and invite the blood thither, ſo as to relieve thoſe of the *viſcera* from diſtention; for whatever is the cauſe of this fever, its firſt impreſſion ſeems to be made upon the nerves, which leſſens their influence on the body, and prevents that free and equal diſtribution of blood neceſſary to a ſtate of health.

To anſwer this intention, I would prefer an infuſion of any of the grateful aromatic

vegetables

vegetables given warm, as that of mint, ſage, or elder flowers, rather than fluids of the ſpirituous kind; for, by their heating quality, they increaſe the violence of the hot fit or ſubſequent fever, which is the principal thing to be guarded againſt; whereas the former may be given at diſcretion, ſo as only to act during the *rigor*, and will afterwards become of ſervice in abating the febrile ſymptoms by their diluting and reſolvent power.

This tendency to inflammation will be moſt likely to produce violent effects after delivery, when the abdominal viſcera are in a tender irritable ſtate, both from that change of circulation already mentioned, which for a time, will render the woman's conſtitution weak and valetudinary, as well as the violent efforts of labour itſelf. That particular parts of the body are more diſpoſed to inflammation, as the habit changes and becomes more irritable, is evident from repeated obſervation; for inſtance, in

caſes

caſes of a ſtone in the bladder, the pain and inflammation are not continual, but only produced at particular periods from ſome accidental exciting cauſe, which at that time renders the affected part more ſenſible.

As long as the ſolids of the body continue in their natural ſtate, they will allow of being ſtretched to a certain degree without pain; but as ſoon as they become inflamed or diſeaſed, the leaſt irritation or diſtending cauſe will bring on the moſt intolerable ſenſations; and this ſeems to be the reaſon why air or fœces contained in the bowels, at one time produce exceſſive pain, and at another none at all.

Hence alſo a complication of this fever, with *pleuriſy* or *peripneumouy*; and ſometimes a delirium, phrenſy, or madneſs attend, where the blood is more immediately determined to the brain, by anxiety, grief, or other cauſes which occaſion intenſe exerciſe of mind. Three caſes of this

this kind have occurred to me, in all which the diſeaſe was fatal; one of them was that of a baker's wife in *Weſtminſter*, who remained well till the fourth day after delivery, but being ſuddenly diſturbed with ſome religious ſcruples, ſhe was violently ſeized with this fever, attended with delirium, which carried her off; notwithſtanding the uncommon attention paid to her ſafety, by an eminent phyſician, who was called in at my requeſt, and with whom I wiſhed to have conſulted, but was accidentally prevented, by being called another way.

Dr. *Hales*, in his curious Hæmaſtatical Experiments, clearly demonſtrates, that the blood's impulſe on its containing veſſels is exceedingly increaſed by the violent action of the muſcles, particularly thoſe of the abdomen; he alſo remarks, that air retained in the lungs after a deep inſpiration, has the ſame effect; and ſince the birth of a child is brought about by a combination

combination of muſcular forces, viz. from that of the uterus, aſſiſted by the action of the very muſcles already mentioned; namely thoſe of the abdomen and diaphragm, the laſt of which is preſſed down on the inferior parts, at every deep inſpiration; it becomes evident, that violent ſtreſs is laid upon the veſſels of the abdominal viſcera, even in thoſe labours which are ſtrictly natural. Such are the effects of labour-pains on the whole vaſcular ſyſtem, that the pulſe which before was temperate and regular, becomes full and frequent: the complexion florid, and ſometimes the face is enormouſly ſwelled, by the violent efforts and ſtraining of the body. Till ſuch a change is produced, women are not ſubject to this fever; for I obſerved, that thoſe with child, who aſſiſted the nurſes in attending the ſick, were perfectly free from it, even when it was moſt rife; *but being delivered, ſeveral of them ſickened ſoon after, and were affected with the ſame ſymptoms*

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as the reſt. This diſeaſe cannot therefore, with propriety, be called by any other name than *puerperal* or *Child-bed Fever.* Had a modern Author been acquainted with this *ſtriking fact*, he would not probably have cavilled at the appellation. May not this circumſtance added to that change of circulation already remarked, and to the great ſenſibility and irritability of habit obſerved to prevail after delivery, concur as ſo many exciting cauſes to kindle up this fever? and alſo ſhew, why women are never ſubject to it before, *but only after delivery*; and more particularly, during an unhealthy conſtitution of the atmoſphere. For if this diſeaſe was owing to *compreſſion of the abdominal viſcera* in general, or to that of the *omentum* in particular, independent of any alteration in the air, as ſome have aſſerted; ſince this cauſe is the ſame in all gravid women, its conſequences would alſo be more uniform, and the diſeaſe would be equally frequent at all times

of the year, inſtead of prevailing with uncommon violence at particular ſeaſons. Beſides, if it was occaſioned by preſſure of the gravid uterus on the contiguous viſcera; it would *neceſſarily happen before delivery, when that preſſure was greateſt*; whereas, experience ſhews that it never appears 'till after delivery, even in the *epidemical ſeaſon*. In ſhort, if pregnancy produced this fever, pregnant women would be ſubject to it, and delivery, by emptying the uterus, *would not occaſion but cure it*; according to that univerſal axiom, take away the cauſe, and the effect will ceaſe.

The vital powers of the viſcera being thus impaired, their ſeveral functions will be unduly performed, particularly the *abſorption of lymph* from the abdominal cavity; hence depravity and corruption of that retained ſtagnating fluid, and an increaſe of pain and inflammation of thoſe parts with which it is in contact; hence alſo ſwelling of the belly, which may be looked upon

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as a *ſpecies of tympanites*. This morbid affection did not ſeem to happen from wind in the bowels; for, if ſo, it would have ſubſided, by the frequency of ſtools, which was not the caſe. It was evidently owing to expanſion of air generated in the cavity of the abdomen, from putrid diſſolution of the *omentum*, and a corruption of purulent fluid collected there in large quantities.

The diſſection of bodies thus affected, confirmed me in this opinion; for, on cutting into the *abdomen*, a putrid *flatus*, intolerable to the ſmell, iſſued forth with a hiſſing noiſe, and the prominence of the belly immediately ſubſided. In general, there was but little air in the inteſtines, which were likewiſe almoſt empty of *fæces*, and only contained a blackiſh fluid like that voided by ſtool, with particles of ſomething which looked like fat after it had been melted and become cold.

Conſidering the ſuppuration of *omentum*, and large quantity of purulent fluid found

in the *abdomen* after death ; it is eaſy to ſee how a fever which was truly *inflammatory* in the beginning, may ſoon become *putrid*, by abſorption of that fluid, which like *old leven*, will taint the blood, and by exciting a putrid ferment in the whole maſs, change its qualities into thoſe of its own morbid nature.

The ſtructure and uſe of the *lymphatics*, and their exiſtence as a diſtinct ſyſtem of veſſels, numerouſly diſtributed to the ſeveral cavities of the body, diſcovered and accurately deſcribed by Dr. *Hunter*, with experiments made on quadrupedes, ſufficiently demonſtrate the reality of this abſorption ; for it has often been obſerved, that although a large quantity of any warm fluid had been injected into the abdominal cavity of different animals in the living ſtate, not a drop of it could be found after death.

Beſides,

Beſides, as the *liver* chiefly receives its blood from the inteſtines, *omentum*, and *meſentery*, which is loaded with *oil*, abſorbed by the veins from the two laſt parts, ſo as to render it fitter for the ſecretion of *bile*; it will follow, that, as ſoon as the *omentum* is deſtroyed by putrid diſſolution; the refluent blood carried to the liver will be vitiated and corrupted, and paſſing through that large gland to mix with the general maſs, will contaminate the whole, and produce a true *febris purulenta*. Hence general inflammation, adheſions of the lungs and *pleura*; a collection of putrid *ſerum* in the *thorax*, and matter under the *ſternum*; as in the caſe of *Harriot Trueman*. This appears more probable, becauſe, on enquiry of the patient's friends, I could not find ſhe had ever been in the leaſt ſubject to any complaint in the breaſt. Beſides, as *bile*, of all the humors in the body, is moſt liable to be changed, this fluid, tainted with blood brought from the *diſ-*

eaſed omentum, will ſoon become putrid, and by its cauſtic acrimony create anxiety, ſickneſs, and vomiting, with *tormina* in the bowels, and profuſe *diarrhæa*; ſo that it will now offend in quality, as well as quantity, which laſt has already been ſufficiently taken notice of. Before it is altered from its natural ſtate, it ſeems in a great meaſure inoffenſive to the ſtomach; becauſe freſh, inſpiſſated bile of animals, given as a medicine, does not occaſion the above diſorders.

Thus I think it evidently appears, that the ſymptoms of putrefaction were not originally ſuch, but are produced by *metaſtaſis*; not from that of *vitiated milk* or *obſtructed lochia*, as generally ſuppoſed; but by abſorption of *purulent fluids* ſtagnating in the abdomen, and morbid tranſlation of matter from the *ſuppurated omentum*; and if ever marks of putrefaction appear in the beginning, they are confined to the *primæ viæ* only, and ariſe from tainted, rancid bile; for a corruption of the blood and juices ne-

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ver happens till in the advanced ſtate of this diſeaſe; otherwiſe, ſuch a putrefactive tendency in the habit would certainly exert itſelf ſooner, and produce the diſeaſe before delivery; eſpecially in the *epidemic* ſeaſon.

As ſoon as internal mortification commences, the pain ceaſes, which perſuades thoſe preſent that the patient is better; but when this ſuddenly happens, after it has been exceſſive a conſiderable time, and in an advanced ſtate of the diſeaſe, without any critical evacuation which could prove ſalutary, it is a fatal and deluſive ſign, and ſoon followed by a ſinking, quick and intermitting pulſe, ſwelling of the belly, a diſtreſſed countenance, with partial, faint ſweats on the breaſt and face, and ſometimes by dilirium, which ſhew that death is at hand.

That acute and incomparable practical phyſician *Baglivi*, was the firſt who de-

ſcribed the *meſenteric fever*, and obſerves, that latent inflammations of the viſcera, are generally the cauſe of thoſe fevers called malignant, and which often end in abſceſs or gangrene of the affected parts, when *bleeding* has been neglected.

In painful or inflammatory diſeaſes of the viſcera, ſo great is the ſenſibility of the ſeveral parts, that the whole nervous ſyſtem is eaſily drawn into conſent; hence a perverſion or defect of their ſeveral natural functions. The heart will be affected with ſpaſm, and not being able duly to perform its office, the pulſe will become quick, weak, and intermitting. This dimunition of nervous influence on the affected internal parts, will alſo account for the great and ſudden loſs of ſtrength, and ſhew why the *pulſe* is *weak*, *quick* and *irregular* in Child-bed Fever, inſtead of being hard and full, as in the pleuriſy; and indeed, in moſt diſeaſes of the abdominal viſcera, the pulſe becomes languid, and loſes it firmneſs, before

fore there can be any actual proſtration of bodily ſtrength; as in caſes of taking poiſon, or where a violent fit of gout ſuddenly fixes upon the vital parts.

As it appears that women, ſo long as they remain with child, are not more ſubject to this fever, than others who are not pregnant; it will follow, that a diſtemperature of air is not alone ſufficient to produce it, until it is aſſiſted by change of habit in conſequence of delivery; but as ſuch a change is then common to all women, it is alſo evident, that in general, it may be endured without much danger, whilſt the ſeaſon remains healthy; ſince ſcarce one in a thouſand is then affected with it; except from *errors* in *diet*, *paſſions* of the *mind*, the effect of *taking cold*, or other manifeſt, exciting cauſes; conſequently, it will always be found moſt ſevere, whenever ſuch concurring cauſes are moſt numerous, and in proportion as they are more or leſs dangerous in their own nature: Thus for inſtance,

ſtance, it will always be found moſt *fatal* when moſt *epidemical*, that is, during a diſtemperature of the air; and leaſt of all ſo, when it happens in healthy ſeaſons, from accidental cauſes only. If at ſuch a time, it ſhould ariſe ſimply from taking cold, it is often terminated by a profuſe, long continued ſweat; if from food offending the ſtomach in quantity or quality, the patient is often relieved by ſpontaneous vomiting or a diarrhæa; but on the contrary, if it is brought on by the violent paſſions of the mind, the event is different; for as the cauſe continues, ſo does the fever likewiſe. Beſides, in ſuch caſes, there is generally a defect in the natural ſecretions and excretions, and as nothing will weaken the vital powers of body ſo much as diſtreſs of mind; a ſalutary criſis is then very ſeldom known to happen.

I have alſo obſerved, that this diſeaſe generally comes on about the ſecond or third day after delivery, and that

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the ſooner it attacks the patient, the more ſhe is in danger. The ſenſibility and irritability of body, which are always obſerved greateſt at that time, ſeem to account for the firſt of theſe circumſtances, and alſo ſhew why the fever is then moſt dangerous in its event; ſeeing, that this prediſpoſing cauſe exiſting in the habit, will then moſt powerfully co-operate with, or increaſe the agency of any other external cauſe, which may chance to occur.

From this preceding hiſtory of the *Child-Bed Fever*, joined to its morbid appearances already mentioned; the following concluſions may be drawn by way of recapitulation.

Firſt, that it does not ariſe from a tranſlation of *corrupted milk*, or *obſtructed lochia*; ſecondly, that it is not owing to *inflammation* of the *uterus*; thirdly, that a certain *mecanical change* produced in the body by delivery, is the principal prediſpoſing

ſing cauſe of the diſeaſe, and the reaſon why it is *peculiar to women after delivery only*; fourthly, that whenever it is remarkably frequent and fatal at particular ſeaſons, its proximate cauſe ought to be referred to a *noxious conſtitution of the air*; which was ſtill more fully proved by thoſe caſes, where the fever ſuddenly appeared in the epidemic ſeaſon, without any other evident cauſe whatſoever. Fifthly, that it may ſometimes happen in the moſt healthy ſeaſons, from the *accidental cauſes* already enumerated, and that in ſuch inſtances, it is leaſt dangerous; ſixthly, that the temporary change brought upon the habit, by delivery, may generally be endured without producing this fever, if none of the cauſes already mentioned then happen to ſupervene; and alſo that women are more or leſs ſubject to the impreſſion of all ſuch cauſes, in proportion to the ſenſibility and irritability of their habit: Laſtly, that it is not owing to the preſſure of the *gra-*

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vid uterus on the *abdominal viſcera* in general, or the *omentum* in particular; for if ſo, pregnant women would be more ſubject to it, than thoſe lately delivered, conſequently it could not be *Child-bed Fever.*

I have been more diffuſe in what relates to the *Pathology* of this diſeaſe, becauſe, nothing will tend ſo much to eſtabliſh a rational method of cure, as thoſe *obſervations which immediately reſult from the diſeaſe itſelf; the ſtructure and uſe of the ſeveral affected parts, and their morbid appearances after death.*

In the *Child-bed Fever*, therefore, as well as all thoſe, which like it, are truely inflammatory, and uniformly produce *internal ſuppuration*; *bleeding* is the only remedy which can give the patient a chance for life; eſpecially, as local inflammation, if violent, more frequently terminates by a fatal ſuppuration than any other way, where that has been neglected.

Indeed,

Indeed, from the ſtricteſt attention to the ſeveral ſymptoms and circumſtances of this diſeaſe; without ſhaping a theory to coincide with any particular method of practice; the reaſons for bleeding are as manifeſt and cogent as in the *pleuriſy* itſelf, where an *empyema* is ſometimes brought on; for a collection of matter in the thorax or abdomen are equally fatal.

The principal objections by thoſe who are averſe to bleeding, are as follow. Conſidering the loſs of blood after delivery, and ſubſequent lochial diſcharge, it would exhauſt the patient's ſtrength too much, eſpecially as ſhe is uſually enjoined abſtemious diet for ſeveral days after; that by leſſening the ſtrength, it would prevent a criſis; increaſe irritability of the body, and aggravate all the ſymptoms of this fever, or diſpoſe it to become putrid. But thoſe are groundleſs objections and plainly contradicted by what may be obſerved in practice; for the violence of fever,

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and *ſymptomatic purging* ariſing from it, will be found to ſink the patient's ſtrength much more than loſs of blood, which, on the contrary, by removing tenſion and pain from the bowels which act as a ſtimulus and keep up the diarrhæa, will have the effect of an *anodyne*, and more ſafely abate that diſcharge than either opiates or aſtringents, both which are highly improper at the beginning of the diſeaſe. *Bleeding*, by diminiſhing the quantity, and force of the blood through the liver, and larger internal veſſels, will likewiſe leſſen the *ſecretion of bile*, and therefore relieve the ſickneſs and anxiety at ſtomach, as well as difficulty of breathing and oppreſſion of the *præcordia*.

Beſides, I am inclined to think that women after delivery, eſpecially thoſe who do not ſuckle, are able to bear the loſs of blood much better, than is generally imagined; for as the fœtus does not then demand its long-accuſtomed ſupply of nouriſhment,

riſhment, it will revert to the mother, and gradually create a temporary plethora, as already obſerved.

It ought alſo to be remarked, that neither *inanition* or *plethora* are natural to the body in a healthy ſtate; that one extreme is hurtful as the other, and will produce irritation in as high a degree; for in plethoric habits, where the veſſels are overcharged and violently upon the ſtretch, all the ſymptoms of irritability are evidently increaſed. The ſame quantity of light which did not offend the eye in its natural ſtate, becomes intolerable to it when inflamed; and the ear is not able to endure the leaſt noiſe, without being diſagreeably affected, after being ſeized with inflammation.

To proceed, *early and copious bleeding*, at the onſet of the diſeaſe, will prove much more ſerviceable than afterwards; thus, eight, or ten ounces of blood taken away at firſt, will afford more relief than twice

twice that quantity at different times. By the firſt method, tenſion of the veſſels is ſuddenly taken off, and the *pain*, *fever*, and *inflammation* are thereby abated. The whole vaſcular ſyſtem being now relieved, a more free and equal diſtribution of the blood will follow, and the natural ſecretions being more duly performed, a *ſalutary criſis* may the rather be expected. On the contrary, where the veſſels have remained long on the ſtretch, and being as it were overſtrained, have loſt their reſiſting power, all the above ſymptoms will be increaſed; and although blood ſhould at laſt be drawn, if the inflammatory ſymptoms have run high, and *matter has begun to form in the omentum, or any of the vital parts, from which it cannot be evacuated*; *it is then too late to expect relief*; for the diſeaſe muſt neceſſarily become fatal, both by a diſſolution of parts eſſential to life, and the confinement of that purulent fluid, which will not only corrupt and deſtroy the ſurrounding *viſcera*,

but by its abſorption will ſoon taint the whole fluid maſs; ſo that although bleeding in the beginning, is the principal remedy to be depended on, it will *ſeldom prove of ſervice after the ſecond or third day* of the attack; and if directed later, will only further exhauſt and enfeeble the patient, and haſten her end.

Conſidering the languid ſtate of the patient, and weakneſs of her pulſe, even in the beginning of this fever, I was ſurprized to find the inflammation had ſometimes run ſo high and made ſuch rapid progreſs, as to produce matter in the abdomen, ſo early as the *fourth* or *fifth day* after the firſt attack, as will appear in the caſe of *Harriot Trueman*; which fully proves the neceſſity of bleeding *early*, or *not at all*.

Practitioners, from a ſcrupulous attention to their reputation, are generally ſparing in the application of ſuch remedies as have been doubted in their good effects, by thoſe of the profeſſion, or even where vul-

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gar prejudices have been violent in oppoſing their uſe. It is no wonder therefore, conſidering the weakneſs of pulſe ſo remarkable in this fever, with the objections already mentioned, that *bleeding* ſhould have been directed with an uncommon degree of caution, for where blood was drawn at all, it was only in *trifling quantities, and ſeldom till the decline of the diſeaſe*, where every thing elſe had been tried in vain; and conſequently where *matter being formed*, neither that evacuation, nor any other human means, could poſſibly avail. Thus, the miſapplication of this remedy, plainly appears to have been the reaſon why it was not ſooner adopted as ſafe and beneficial.

In ſhort, as no *purulent matter* can be formed without *preceding inflammation*; and as no means have hitherto been found ſo effectual in abating inflammation, as *bleeding*, *laxatives*, and *plentiful dilution*; thoſe, who cannot ſee the abſolute neceſſity for their uſe, muſt certainly ſhut their eyes on all conviction.

As the cure will be found to depend principally on the ſeaſonable loſs of blood; it will be requiſite to regard all ſuch indications as may be taken from the *pulſe*, and to lay down ſuch rules and cautions as particularly relate to this circumſtance.

Nothing will ſo clearly point out the time when this remedy ought to be directed, as a previous acquaintance with the natural ſtate of the pulſe, which is found to vary exceedingly in different habits of body: A difference in the ſize and diſtribution of the artery conſtituting the pulſe, will alſo occaſion very different impreſſions on the finger in regard to its ſtrength or weakneſs; conſequently, it ought to be alternately felt in each arm of the ſame perſon. The general habit, age, and manner of living, will alſo afford great information in this particular; for inſtance, if the patient is young, and previouſly enjoyed an uninterrupted ſtate of health, with a keen appetite and good digeſtion; when the pulſe

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in ſuch a perſon ſeems to ſink in the very beginning; ſuch a ſudden alteration ariſes from oppreſſion, and not weakneſs, and requires immediate loſs of blood; particularly, where no profuſe evacuation had preceded, ſuch as hæmorrhage, diarrhæa, or long abſtinence, anxiety of mind, with want of reſt, or great bodily fatigue. On the contrary, if ſhe has been of a valetudinary, hyſterical habit, with lax fibres, bad digeſtion and pale aſpect; a languid pulſe, with ſuch appearances, may reaſonably be imputed to a real want of bodily ſtrength rather than oppreſſion; and conſequently, bleeding ought to be omitted.

We are alſo told, that on compreſſing the artery at the wriſt, with the finger, if from being ſmall and apparently weak, it ſuddenly becomes more ſtrong and renitent; we may be ſure it is oppreſſion, and not weakneſs, which then prevails. This, however, I think, is not an opinion well founded; for whether the artery beats languidly

from real weakneſs, or the diminiſhed impulſe of the heart, or whether the action of the arterial ſyſtem is overcome by too great a plenitude of veſſels; the effect will be nearly the ſame in both caſes, and the artery will act weakly on the touch.

The degree of ſtrength may be better known by attending to the more obvious ſigns of ſtrength or weakneſs, and by regarding the ſlowneſs or frequency of pulſe; for, in proportion as bodily ſtrength is exhauſted, it increaſes in frequency; and on the contrary, when the ſtrength remains unimpaired, the number of pulſations are proportionably leſs; but being both more full and ſtrong, the circulation is then more uniformly carried on than when the artery beats quicker; for the free diſtribution of blood through its veſſels, does not depend upon the frequency of the heart's contraction, but on the degree of ſtrength and energy with which it acts at each pulſation.

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But the moſt ſecure way of proceeding in doubful caſes, will be to feel the pulſe during the time that blood is flowing from the vein; if its ſtrokes become more ſtrong, ample and free, the quantity to be taken away may be increaſed; but if it ſinks and loſes its equality and firmneſs, the bleeding orifice ſhould immediately be cloſed. However care is to be taken, leſt we are impoſed upon by that languor of the pulſe, brought on by compreſſion of the artery, by an over-tightneſs of ligature round the arm.

It was neceſſary to be more particular on this head, as there is great difference between *nature oppreſſed*, and *nature exhauſted*; and as the ſafety of the patient principally depends upon a true diſtinction between real want of ſtrength, and that which is only apparently ſo.

Without we are previouſly acquainted with the natural ſtate of the pulſe, and its number of ſtrokes in a minute, when the

body is in health; little information can be had when we are told it beats a hundred and twenty, or any certain number of ſtrokes in a minute, during the time of diſeaſe. I have therefore, in the hiſtory of the caſes which follow, rather choſen to ſignify the degree of feveriſh heat, by the general terms of weak and ſtrong, quick or ſlow, as applied to the pulſe, than by mentioning the preciſe number of its ſtrokes in a minute.

From theſe preceding general Obſervations, the indication of cure may be taken. Hence it will follow, that *bleeding* ought to be directed at the *very onſet of the diſeaſe*; ſecondly, that it will be neceſſary to diminiſh the violence and duration of the *cold fit*; thirdly, the redundant, *corrupted bile* is to be evacuated and corrected as ſoon as poſſible; fourthly, that the *diarrhœa*, when exceſſive, ought to be reſtrained by emollient, anodyne clyſters, and gentle ſudorifics, or even by opiates, and mild aſtringents,

gents, when the patient's ſtrength begins to ſink under the long-continued diſcharge; and laſtly, where ſigns of *putrefaction*, or an *intermiſſion* of the fever appear; that antiſeptics and *Peruvian bark* may be freely adminiſtered.

The choice of remedies is often matter of great difficulty, even to thoſe moſt converſant with the nature of diſeaſes, and after that is determined, it is not ſo much the medicine itſelf, as its application, which renders it truly ſalutary; for as things derive their value from their proper uſe, ſo efficacious medicines injudiciouſly adminiſtered, like bleſſings perverted, are of all others *moſt dangerous*; ſince whatever is powerfully good, if properly given, will become as powerfully bad, when miſapplied.

As it is of great uſe to diſcover by fair trial, what medicines are principally to be depended upon in the cure of particular diſeaſes; ſo it would be highly ſerviceable if thoſe

thoſe in practice, conſcious of their own upright intention, would alſo venture, candidly to point out ſuch methods and medicines, as they had found either *uſeleſs* or *prejudicial.*

Dutean and the French writers in general are great advocates for the uſe of *Camphor* in the cure of this diſeaſe; and Dr. *Störck*, who ſeems to have copied them, recommends its liberal uſe in a mixture of Peruvian Bark. For common drink he alſo directs the almond emulſion with one dram of Camphor to every pint; and clyſters to be injected twice a day, with one dram of Camphor diſſolved in broth by the aſſiſtance of Gum Arabic. From this method and the omiſſion of blood-letting, he tells us that all his patients happily recovered. Happily indeed, if ſuch was the event! For my own part, being honeſtly ſolicitous for the ſafety of my patients, and the improvement of medicine, rather than the eſtabliſhment of particular doctrines, I ſhould

ſhould rejoice to find the ſucceſs of this method verified by the *teſt of future experience*, which alone will beſt determine its effects. I confeſs, however, my doubts at ſo general an aſſertion, eſpecially when I look back on the fate of *Extract. Cicutæ*, after being uſher'd into practice with ſuch extravagant encomiums by the ſame author.

As I have chiefly taken theſe remarks from the ſecond part of the *Foreign Medical Review*, I think it proper to conclude them in the words of the author of that publication, as follows:

"If what the author (*Störck*) here relates be true, this method would doubtleſs be preferable to any other; and his veracity in this point, may, we think, be determined by thoſe who have the inſpection of Lying-in Hoſpitals. We ſhall only remark, that all medical books publiſhed at Vienna, in which Dr. *Störck*, or whoever preſides over the faculty, are ſo much flattered,

flattered, as to render us ſuſpicious, in reſpect to the truth of the obſervations they contain."

In general, I think too much is attempted by medicines; and as their proper application requires ſkill, ſo it ought no leſs to be deemed true medical knowledge, to determine when it is better to ſtand ſtill, and watch the operations of Nature, rather than to proceed in the dark, and run the riſk of thwarting her ſalutary endeavours. By ſuch means ſome diſeaſes either become tedious in the cure, if happily they are cured at all; which in a manner left to themſelves, or treated by ſimple remedies, would perhaps be terminated more favorably; eſpecially where the habit of body is good, the viſcera ſound, and the natural ſecretions neither greatly defective or perverted.

Nothing can be more blameable than that precipitate and deſultory method of flying from one medicine to another, at

the

the appearance of every new ſymptom; without waiting ſufficient time to obſerve the effects of any; it is indeed preſcribing for the *ſymptoms only*, inſtead of the cauſe of the diſeaſe from which they ſpring; and is not acting more rationally than he who ſhould attempt to clear his garden of weeds by only plucking off their leaves.

In regard to loſs of blood, the quantity to be taken away is not ſo much to be determined by its appearance, as the degree of pain, fever, and difficulty of breathing; for its *ſizineſs* is not uncommon in *pregnant women*, even in a ſtate of health; and in diſeaſes of the inflammatory kind, it ſeems to be the conſequence, and not the cauſe of inflammation; for the firſt-drawn blood is ſeldom ever ſo ſizy as that taken away after continuance of the fever.

When the patient is young and plethoric, the pulſe full, thirſt great, the ſkin dry, and the urine high colored; ſhe may loſe eight or ten ounces of blood, in the beginning

ning, with great ſafety and advantage; and a ſmaller quantity may afterwards be repeatedly taken away, in proportion to the violence of the ſymptoms.

Large draughts of warm tea, or any other diluting liquor may then be given, and afterwards, bladders half full of hot water may be wrapped in flannels and applied to the ſoles of the feet, the *axillæ* and ſides, in order to leſſen the violence of the cold fit, and keep up the circulation in the extremities and ſurface of the body, where it is moſt languid.

One would have imagined that the *warm bath* bid fairer to anſwer this intention than any thing elſe, as it acts like a univerſal fomentation applied to the bodily ſurface; and the rather, ſince it has been found to procure almoſt inſtant eaſe in other diſorders of the bowels; but to the confuſion of all theory, in thoſe caſes where it was tried, it by no means anſwered my expectation; and from what I could learn,

ſucceeded

ſucceeded no better with others; for the greateſt part of thoſe died for whom it was directed: This however, in ſome meaſure, might be owing to want of bleeding, which was generally neglected in the beginning; or becauſe, like that, it was made uſe of too late, viz. after the *formation of matter* in the abdomen.

Upon the whole, the warm bath, by firſt acting as a reſolvent, from abſorption of aqueous particles into the blood, will ſooth the nerves, relax the ſkin and enlarge the pores, and therefore, tend to promote a free perſpiration, without heating the body; and as I am ſtill inclined to think favorably of it, when ſeaſonably applied after bleedings, could wiſh to recommend it as a remedy which deſerves further trial.

When it is thought neceſſary, a bathing tub near two parts full of warm water, may be placed at the patient's bedſide, into which ſhe may be gently lifted, and ſuffered

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to remain for ten, fifteen minutes, or longer if ſhe does not grow faint; when taken out, a clean, warm ſheet may inſtantly be applied all over her body, to ſpunge up the moiſture; after which, a looſe flannel gown, long enough to come down to her feet, may be put on warm next her ſkin, and draughts of any thin diluting fluid may then be given in bed, to promote perſpiration. The bath ſhould only be of a temperate heat, otherwiſe, inſtead of relaxing, it will criſp the fibres of the ſkin, and defeat the purpoſes for which it was intended.

To evacuate offending bile from the ſtomach, nothing proved more effectual than the following *emetic*:

℞. *Tart. emet. gr. ii.*
Aq. alex. ſimp. ℥ *iſs*
Oxymel. Scillit. ℥ *iii miſce.*

It acted much ſooner than *ipecacoanha*, and did not bring on ſuch intolerable and long-continued ſickneſs after its firſt operation; which

which perhaps might be owing to a more perfect ſolution of antimony by the acidity of oxymel; it alſo ſeems to poſſeſs a febrifuge quality, and diſpoſes the patient to ſweat; an effect probably ariſing from what is common to other emetics which produce that effect by agitating the body.

When the nauſea and ſickneſs are violent, the emetic ſhould be weaker; but if the ſtomach is ſcarcely affected, it may then be wholly omitted, and a *gentle laxative* given after bleeding, which will procure a free diſcharge of bile.

Bleeding ought generally to precede the emetic for reaſons already given; and alſo becauſe the abdominal viſcera will ſuffer leſs from the efforts of vomiting when the veſſels are more empty.

After moſt of the bile has been rejected, by ſpontaneous vomiting, or the emetic draught; the putreſcence, or rancid acrimony of what remains,

ſhould alſo be corrected. Aceſcent vegetable juices ſeemed moſt likely to anſwer this intention; as thoſe of oranges, lemons, &c. I therefore, at firſt directed them in draughts of weak tea, or barley water; but ſuch was the tenderneſs and irritability of the inteſtines, that, by the continuance of this method, the patient would ſoon have been purged to death; conſequently they were immediately laid aſide. We alſo tried the *ſaline mixture*, where the acid was exactly neutralized, and which, on many accounts, promiſed fair for a uſeful medicine; but that likewiſe proved ſo purgative, that it could ſeldom be ſafely continued without the addition of *ſperm. ceti* and *gum. arab.* which rendered it more ſoft and friendly to the bowels; although even this alteration was not always ſufficient to remedy the inconvenience complained of.

The following draught, which is purpoſely directed in a ſmaller quantity than uſual, may be given every four or five hours, or at any time as occaſion requires.

Sperm.

℞ *Sperm. Ceti*
Mucilag. Gum Arab. aa ʒ *ſs bene*
tritis & ſubactis, ſenſim adde
Succ. Limon. ʒ *ſs, cum*
Sal. Abſinth. ſaturat.
Aq. Cinnamon. Simp. ʒ *i*
Syr. balſamic. ʒ *i, miſce.*

Saline mixture given in a ſtate of effervescence has ſometimes been known to ſtop the moſt violent bilious vomitings, where every thing elſe had been tried in vain.

The frothing or conflict which ariſes on mixing the acid and alkali, ſeems more properly ebullition than fermentation; yet there is reaſon to believe the effect of this medicine given as above, is produced by ſomething ſimilar to what the Chymiſts call *Gas Sylveſtre*, or the effluvia eſcaping from fermenting liquors, which will ſweeten and reſtore fleſh that was become putrid and ſtinking.

So powerfully antiſeptic is this *ſubtile gas*, that we are told, the plague at *Marſeilles* was ſtopped by its influence; for that dreadful calamity ſuddenly ceaſed ſoon after the *vintage*; owing, as was ſuppoſed, to the vapors ariſing from the vaſt quantities of *fermenting new wines* made there.

Where this fever proceeds from the violent paſſions of mind, and attacks thoſe of plethoric habits attended with *delirium*; an emetic would be very improper; half an ounce of lemon-juice, in a tea-cup full of water, may therefore, be given, upon which, a ſcruple of ſal abſinth. diſſolved in the ſame quantity, may be drank immediately after; ſo as to produce an effervescence in the ſtomach, from which none of the ſubtile effluvia can eſcape; and therefore it will ſtill more effectually anſwer the intention of correcting the corrupted bile, eſpecially if the alkaline ſalt is allowed to predominate; for the proceſs of

ſweet-

ſweetening and purifying *rancid train oil* depends chiefly upon its antiſeptic principle.

This mixture will alſo evacuate gently by ſtool, which is more neceſſary, where no emetic has previouſly been given.

Thoſe who direct medicines in this diſeaſe are extremely divided in their opinion concerning the diarrhæa ; being in doubt whether it is *critical, or ſymptomatic.* An evacuation happening ſo early as to uſher in the diſeaſe, cannot properly be conſidered otherwiſe than *ſymptomatic*, as I have already endeavoured to ſhew ; but wherever the caſe appears perplexing, the beſt and ſureſt way will be to keep a watchful eye on the patient ; if ſhe is much relieved by the appearance of this, or any other diſcharge, it never ought ſuddenly to be ſuppreſſed ; but on the contrary, if the ſymptoms, which before prevailed, either continue without mitigation, or are aggravated ; and above all, if her ſtrength

begins hourly to ſink and decline; ſuch an evacuation ſhould ſpeedily be reſtrained or totally taken away, if it is in the power of medicine to do it; without loſing time in making finical diſtinctions, more ingenious than uſeful: But however ſimple and obvious this practical obſervation may appear, it has not been ſufficiently attended to.

When the diarrhæa is *truly critical*, which is ſeldom the caſe, it commences later; the ſtools have more conſiſtence and are of a yellowiſh hue, the belly is ſoft, appetite and ſleep return, and the patient is much relieved. On the contrary, in the *ſymptomatic diarrhæa*; the ſtools are black and ſlimy, at laſt becoming watery, and ſometimes of a dark olive-color, or like that of ruſty iron; thirſt and fever continue, and the belly is tenſe and painful.

But altho' the diarrhæa is not ſtrictly critical, it manifeſtly affords relief in the early ſtate of the diſeaſe, and therefore ought not to be ſtopped by *opiates or aſtringents*, which

which I found injurious, eſpecially in ſtrong plethoric habits, where bleeding had been neglected : By conſtipating the bowels, they concentrate the ſordes collected there, and if the purging does not return ; great oppreſſion at ſtomach will follow, with increaſe of thirſt, ſickneſs and nauſea : In ſhort, whenever theſe medicines are thus unſeaſonably adminiſtered, they will always be attended with the worſt conſequences, and aggravation of all the feveriſh ſymptoms, as I had frequent opportunities of obſerving.

On the contrary, when the body is kept laxative, the inteſtines are unloaded of their putrid contents ; ſickneſs and oppreſſion are relieved, and the fever is conſiderably abated.

Emollient clyſters prepared from freſh animal ſubſtances, ſhould next be frequently adminiſtered, and the longer they remain with the patient, ſo much the better, as they will then more effectually cheriſh the

bowels by their gentle warmth and relaxing vapor, and act as internal fomentations to the whole abdominal viscera; besides, by being absorbed, they will dilute the blood and become resolvent.

Seven or eight ounces of chicken or beef water, or a weak decoction of chicken guts, without fat, salt, or any other addition, will answer the purpose; but all such clysters should only be given milk-warm, and in small quantity, otherwise they will distend the intestines, and by creating pain will soon be forced away.

Whenever the bowels are affected with pain, *opiates*, after evacuations, are best given in clysters; being then immediately applied as it were to the naked nerves of the diseas'd part; hence they diminish irritability of the intestines, relieve pain, procure sleep, and are less liable to affect the head, than when given by the mouth: Thus, gtt. xxxx of *tinct. thebaic.* may be added, as occasion requires.

Clysters

Clyſters of the cathartic kind, are alſo neceſſary before the uſe of purgatives, when the patient has been long coſtive; for where the laſt have been given and do not readily paſs off; ſevere gripings and tormina will follow.

Some are ſo timorous, that they will not venture to give *laxatives* 'till the fourth or fifth day after delivery, leſt they ſhould check the *lochial diſcharge*, or bring on a dangerous purging; but theſe are unneceſſary cautions, for I never knew the *lochia* interrupted, nor any diarrhæa brought on by their ſeaſonable and proper uſe; but on the contrary, the laſt will often ſuddenly happen, where the body is ſuffered to remain too long coſtive, in conſequence of the inteſtines being over-diſtended with indurated fœces, which create pain, and ſtimulate them to frequent expulſion.

Head-ache, dilirium, or fever, are ſometimes brought on by omitting the uſe of

of laxatives, which may be given with ſafety at any time, but are indiſpenſably neceſſary about the ſecond or third day after delivery; eſpecially in ſtrong habits, where the patient does not intend to ſuckle her child. In ſhort, when the body is kept cool and temperate, by a *ſolutive regimen*, the better chance ſhe will have to avoid fever, and the more regularly will all the natural ſecretions and excretions be carried on.

The following laxative mixture, which is extremely gentle and pleaſant, may be directed in the quantity of two or three ſpoonful, or more, every two or three hours, till it produces its proper effect.

℞.

Ol. Ricini, cum Vitel. Ovi ſolut. ℥ *i*

Mann. calab. ℥ *ſs*

Aq. Hyſſop. ℥ vi *fiat. Miſtura.*

As ſoon as the bowels are ſufficiently emptied, the following *antimonial powder* may immediately be adminiſtered;

ſtered, but ſometimes it proves violently irritating, even in very ſmall quantities, and will produce a dangerous ſuperpurgation if not managed with the greateſt caution; if this ſhould happen, five drops of *thebaic tincture* may be occaſionally added to each doſe of the julep in which it is to be given.

℞.

Tart. emet. griſs

Magnes. alb. ʒ *i*

accurate contere et fiat pulv. in ſex portiones dividendas, quarum ſumat unam 4ta. *quaq. hora, vel ſubinde pro re nata, cum Cyath. Julep. ſequentis.*

℞.

Julep. e Camphor. ℥ *vii*

Aq. Cin. ſpt. ʒ *ſs. miſce et fiat*

Julepum ut ſupra exhibend.

When the firſt or ſecond doſe of powder produces no ſenſible effect, it ought to be given oftener, and in a larger quantity, 'till it either creates *nauſea or gentle perſpiration*;

perſpiration, without which, it ſeldom procures laſting relief. They ſhould then be given by longer intervals, otherwiſe they will be apt to weaken the patient; however upon the whole, I know nothing better than *emetic tartar* in very ſmall doſes, with the addition of an *opiate*, if neceſſary, particularly after profuſe evacuations; for it not only ſeems to combat the fever, but much more ſafely and effectually reſtrains the diarrhæa than aſtringents; by promoting perſpiration and exciting nauſea at the ſtomach, which, in ſome meaſure, *inverts* the exceſſive periſtaltic motion of the inteſtines, and prevents their frequent diſcharge.

When the patient was much reduced by returns of the evening paroxyſm, attended with chilneſs, wandering pains, dejection of ſpirits, torpor and coldneſs of the extremities; the third part of a grain of *emetic tartar*, given about an hour before its approach, afforded ſenſible relief, by producing a gentle ſweat. This

This ſort of perſpiration may be moderately encouraged by plentiful dilution with weak tea; or if the purging is violent, with rice-water, which generally agreed better with the patient than any thing elſe: But the ſweats excited by heating regimen, which ſtimulates the ſolids, and increaſes their action on the blood, are highly prejudicial, and often deſtructive to the patient, as well as thoſe brought on by immoderate quantities of bed cloaths, or keeping the room too hot and cloſe: For if thoſe in perfect health ſoon grow faint and languid, when deprived of freſh, pure air; the ſame effect in a much greater degree, will neceſſarily happen in the body, when weakened and oppreſſed by the preſence of a diſeaſe.

Whenever the weather is intemperately hot, freſh air ſhould always be allowed to breathe in at that part of the bed-chamber moſt diſtant from the patient; which

which will gradually diffuſe itſelf around, and revive her exceedingly, without the leaſt danger of catching cold.

When the bowels are ſtripped of their mucus, they become ſo exceedingly tender, and the ſtools are ſo frequent, that ſhe will ſink under the diſcharge, if medicines of the irritating kind are any longer continued. Rice-water, uſed for common drink, may now be given with the addition of *gum arabic*, in the proportion of an ounce to a quart; and where the pulſe is feeble and the patient much exhauſted, a common ſpoonful of brandy may occaſionally be added to that quantity, rather than wine, which is apt to turn ſour on the ſtomach, and occaſion eructation and pinchings in the bowels, with increaſe of the diarrhæa.

Nouriſhment that is light and ſimple ſhould now be given often, in ſmall quantities: Beef or chicken-water, poured from the dregs, after the fat has been taken off

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the ſurface, and gently boiled with ground rice, and the addition of cinnamon, was found to agree with the ſtomach, and is extremely ſoft and friendly to the bowels, as it will ſupply them with artificial mucus, and nouriſh the body at the ſame time.

Whenever the ſtrength is evidently perceived to ſink under exceſs of the diarrhæa; three grains of the *pil. e. ſtyrace*, or the following bolus may be given at diſcretion, with a ſpoonful of cinnamon-water, or a very ſmall quantity of any other grateful fluid. In ſuch caſes, I obſerved, that medicines in a ſolid form, were longeſt retained, and therefore are moſt elegible.

℞.

Pulv. e Bolo comp. cum Opio ℈ *i*

Syr. e Core Aurant. q. s. ut fiat Bolus.

Should the diſcharge notwithſtanding continue obſtinate, with ſevere pains in the bowels; clyſters, prepared with jelly of ſtarch and the yolks of freſh eggs, in equal

equal proportions, and diſſolved in a ſufficient quantity of rice-water, with thirty or forty drops of *thebaic tincture* may be adminiſtered by intervals, as occaſion requires, and will often procure immediate eaſe.

The progreſs of this diſeaſe is frequently ſo rapid, that there is not ſufficient time to wait for a diſtinct intermiſſion, as in other fevers; and therefore if the *bark* is given at all, that muſt be done without heſitation, at the very firſt favorable opportunity.

It was obſerved, that this diſeaſe becomes a true *febris purulenta* in its decline, from the abſorption of corrupted fluids ſtagnating in the cavity of the abdomen, altho' it was *ſtrictly inflammatory in the beginning*; ſo that the *putrefaction* at that time exiſting in the habit, like the fizineſs of blood, bilious vomiting, and diarrhæa, is truely *ſymptomatic*, being manifeſtly the conſequence and not the cauſe of this fever.

Indeed,

Indeed, there is reaſon to believe that very few diſeaſes are putrid in the beginning; and that all, or moſt of them, have a tendency to become ſo towards their concluſion; when the vital powers of the body are diminiſhed, and its juices vitiated by preceding exceſs, or preſent defect of their natural motion.

Here it were to be wiſhed, the efficacy of that ſoverign remedy, *Peruvian Bark*, might ſecure the patient from danger; but both reaſon and experience, as well as the very nature of the diſeaſe itſelf, in a manner exclude hopes of relief; for, altho' its liberal uſe might poſſibly be ſufficient to deſtroy the putrefactive tendency begun in the body, by the abſorption of corrupted fluids; yet the large quantity ſtill remaining in the abdomen, from which it cannot be evacuated, muſt neceſſarily prove deſtructive; However, as we cannot always be certain when matter is formed, all poſſible means ſhould be

tried to prevent it; and the bark ought to be given at all events, in large doſes often repeated.

It has been feared, the uſe of this medicine might ſuppreſs the *lochia*; but I am aſſured from repeated experience, it may be given to women after delivery, with the greateſt ſafety whenever neceſſary; for, I never could obſerve it produced any bad effect, or diminiſhed that diſcharge; but on the contrary, often altered its quality for the better; and alſo, rather ſeemed to increaſe its quantity, eſpecially in weak and delicate women, where the circulation was languid.

Sometimes the bark increaſed the purging, and even brought it on again after it had ceaſed; in ſuch caſes I found it neceſſary to join five grains of pulv. e bolo comp. cum opio, with each of the following draughts.

℞. *Cort.*

℞.

Cort. Peruv. pulv. ʒ *i*

Aq. font. lbiſs leni igne coq. ad demid. & ſub finem adjice.

Fol. Roſar. rub. ſicc. ʒ *ii, cola.*

℞

Hujus colat. ʒ *iſs*

Extract. peruv. Cort. moll. ℈ *i*

Tinct. Cinn. ʒ *ij*

Confect. Alkerm. ʒ *i. fiat hauſtus alternis horis exhibendus.*

When the firſt draught was found to purge too much, I ſometimes directed the following:

℞.

Cort. Peruv. ʒ *i*

Granat. ʒ *iii*

Aq. lbii ad demid. coq. & cola.

℞.

Colat. ʒ *iſs*

Tinct. Cinn. ʒ *ii*

—— *Thebaic gtt. v.*

Confect. Alkerm. ʒ *i f. hauſtus.*

Bliſters have ſeldom been applied in the caſes of lying-in women, on account of their ſeverity, eſpecially from the fear of that tormenting complaint the *ſtrangury*; but if, as many imagine, they produce their good effects by powerful ſtimulus, and raiſing inflammation on the ſkin, rather than the diſcharge they occaſion; the application of *ſinapiſms* would then effectually anſwer the purpoſe, without any danger of that diſorder; and therefore, will deſerve the preference to *bliſters* prepared with *cantharides*; tho' I have not yet ſeen them ſufficiently tried to ſpeak from my own experience.

Notwithſtanding, we are told bliſters are improper and injurious, till the fulneſs and frequency of the pulſe ſubſides; I would wiſh it ever to be remembered, that whether we endeavour to relieve the patient by this or any other means, it muſt be *early*, or it will not be at all; and therefore, after bleeding and evacuations, before that alarming ſymptom appears, which denotes *inflamma-*

tion

tion of the *omentum*, viz. pain darting downwards from the ſtomach to the navel; it will be adviſeable to apply a bliſter or ſinapiſm to one or both ſides of the abdomen.

This practice, I think, will be ſufficiently juſtified by the great relief they afford in fixed pleuritic pains, or wherever there is local inflammation.

Volatile liniments, and penetrating topics, ſuch as the following, have alſo been found ſerviceable, particularly where the uſe of bliſters appears exceptionable.

℞.

Ol. dulc. Amygd. ℥ *iſs*

Camphor. ℥*ſs.*

Spt. volat. aromat. ℥ *iii miſce.*

Theſe are the beſt reaſons I am able to aſſign for the expediency of the remedies pointed out in the *Child-Bed Fever*; but I did not venture to truſt to them from theory, nor expected that others ſhould do ſo, till obſervation and experience had

convinced me of their good effects ; particularly *early and copious bleeding*, and the *antiphlogiſtic method* which I am, therefore, deſirous to recommend, in preference to every thing I have hitherto ſeen tried, for the relief or cure of that fatal diſeaſe.

SECTION

SECTION III.

Of the Prophylactic Method, or Means contributing to prevent the Diſeaſe.

THE Child-bed Fever, when produced by a diſtemperature of air, like the epidemic dyſentery, or ulcerous ſore throat, may at laſt become infectious; but when it only ariſes from ſuch accidental cauſes as have already been enumerated, and which are confined to particular habits and conſtitutions; I believe it will then never communicate itſelf to a ſecond perſon.

It is probable, that many diſeaſes which are foreſeen, might either be prevented or rendered leſs dangerous in their event, by what is called the *prophylactic method*, a branch of phyſic not hitherto ſufficiently cultivated or attended to.

Sydenham ſuppoſes, that of thoſe women who fail in Child-bed, ſcarcely one in ten of them die for want of ſtrength, or by what they have endured in labor; but in conſequence of their riſing too ſoon from bed; and therefore, he would not have them taken up at leaſt till the tenth day after delivery. There is ſo much reaſon in this obſervation, that it ought to be duly regarded; but I think it may be ſaid with truth, that the proportion of thoſe dying of Child-bed Fever, compared to the number who die from dangerous or difficult labours, is at leaſt double of that mentioned by Dr. *Sydenham*.

It is ſometimes eaſier to avoid the approach of an evil than to find a remedy for it when preſent; therefore every attempt towards it will be more or leſs neceſſary, in proportion to the danger of the evil itſelf; and ſince it appears that Child-bed Fever, in the epidemic ſeaſon, is frequently fatal; it would be a moſt deſirable

ſirable circumſtance, and a thing of real importance, if means could be deviſed to ſecure women from its malignant influence.

I am inclined to hope that this is poſſible, at leaſt in a certain degree; and the rather from what has been judiciouſly and experimentally laid down on the ſubject of *Fevers* and *Infection* by Dr. *Lind*; or, although the diſeaſe ſhould appear, the ſymptoms would probably be milder, and the event more favorable.

We have obſerved, that when the body is endowed with exquiſite ſenſibility, the more it becomes diſpoſed to receive infection; would it not therefore be rational and expedient, when this diſeaſe is moſt frequent and fatal, to adminiſter ſuch medicines, *a few days before and after delivery*, as have been known to ſtrengthen the conſtitution, and diminiſh the ſenſibility and irritability of the habit? If ſo, nothing would ſo powerfully contribute to this end, as the liberal uſe of *Peruvian Bark*, with

with the calybeate waters, particularly thoſe of *Pyrmont* or *Spa*. Where the nervous ſyſtem is extremely delicate, and thrown into diſorder from ſlight accidental cauſes; the prudent uſe of *opium* will alſo be attended with great advantage; it will reſtore reſt to the body, and tranquility to the mind, by diſpoſſeſſing it of thoſe diſquieting ideas which diſturb and pervert the natural ſecretions, and tend to excite fever. It has been ſuppoſed, this medicine will ſuſpend the bodily powers, and render them torpid or ſluggiſh in ſhaking off diſeaſes, but this appears too haſty a conjecture; for in women of hyſteric habits, who ſuffer from agitation of mind, or want of ſleep, and where the pulſe from thence becomes quick, weak and tremulous; there is not perhaps to be found, a more ſovereign and effectual cordial in the whole Materia Medica.

It

It will alſo be neceſſary to caution the patient againſt all ſuch adventitious cauſes as have been known ſingly to produce this fever, or to add influence to the atmoſphere in bringing it on; ſuch as ſudden terror, or long-continued diſtreſs of mind; riſing too ſoon from bed after delivery; errors in diet; or cold air admitted to the body in a full ſtream. Her food ſhould be ſimple, eaſy of digeſtion, and chiefly of the vegetable aceſcent kind; her drink may be wine and water, acidulated with orange-juice, or any of the grateful acids. She ſhould uſe gentle exerciſe, and breathe a free open air, guarding againſt all ſudden changes from one extreme to another. The bed-chamber after delivery, ſhould be cool, and neither incommoded with much noiſe or ſtrong light. In a word, the body ſhould be kept ſtill and quiet, and every thing carefully avoided which diſagreeably engages attention of mind.

Nothing

Nothing will ſooner diſpoſe the fluids to putrefaction, than *long faſting* which occaſions a ſtinking breath, and looſeneſs of the teeth; ſo that animals ſtarved to death, may be ſaid in reality to rot alive. From this circumſtance may be inferred, the great advantage of frequently taking aliment, or attemperating aceſcent fluids, to prevent diſeaſes of the putrid kind; for it has been obſerved, they will ſurvive a long time by the uſe of water only, which carries off the acrimonious ſalts, and rancid oils, by urine; and thereby hinders the juices from becoming putrid.

How far ſome of thoſe Rules and Cautions might be conducive to the preſervation of women, if duly regarded *before delivery*, I cannot from experience determine; as the patients at the *Weſtminſter Hoſpital* were always received in actual labour; and conſidering how much people in general are ſwayed by opinion and vulgar prejudice; I did not chuſe to urge this matter

too

too far in private practice, leſt by its novelty, it ſhould carry with it the appearance of an experiment, to which thoſe of weak underſtandings are always averſe, however ſafe and rational it might be in itſelf, or beneficial in the concluſion.

The pernicious cuſtom of binding the body too tight, ought alſo to be avoided; as it will produce difficulty of breathing, head-ach, and oppreſſion at ſtomach.

Particular odors will likewiſe occaſion bad effects, and have an inconceivable power on ſome particular women of delicate hyſterical habits; being ſometimes known to bring on ſickneſs at ſtomach, delirium or faintings.

I think it will be adviſeable for the patient to ſuckle her child, at leaſt for the firſt three weeks or a month, although the principal danger ſeems to be over before the end of a fortnight.

Nothing

Nothing will ſo ſoon diſpoſe women to this fever, as breathing a putrid, confined air, eſpecially if it be warm and moiſt; for theſe qualities deſtroy its elaſtic power, and not only render it unfit for reſpiration, but alſo more apt to generate diſeaſes of the putrid kind.

Peu gives a very ſtriking and ſelf-evident proof of the truth of this aſſertion; having obſerved, in hoſpitals where women were delivered in wards among the wounded, many of them died; ſo as to occaſion a ſuſpicion of the ſkill or attention of thoſe who delivered them.* The matter being properly conſidered, they diſcovered, that this uncommon mortality was owing to the *putrid effluvia* continually exhaling from the wounds of the ſick; and as a confirmation of this conjecture, it was obſerved, that when the number of wounded

* *Peu* la Pratiq. des accouch. liv. ii. chap. i. pag. 268.

wounded patients increaſed, ſo did this contagious fever among child-bed women, and vice verſa.

This circumſtance will ſuggeſt a uſeful hint, which ought to be duly regarded by all thoſe who have the direction and ſuperintendance of public *Lying-in Hoſpitals*. The wards ſhould not be over crowded with beds, in order to avoid the danger of breathing air rendered impure by too great a number of people confined in a narrow ſpace; and alſo the cries of children and noiſe of ſuch women as may happen to be in labor. The different wards ſhould not only be kept exceeding clean, but alſo ventilated by a ſtream of freſh air paſſing through them, as they become empty by ſucceſſion.

When the heat of weather is extreme; the air may be rendered cool and refreſhing, as well as antiſeptic, by ſprinkling the boards with pure water, and vinegar; for all fluids in a ſtate of evaporation, have been found to generate cold.

This

This method was conſtantly obſerved at the *Weſtminſter-lying-in Hoſpital*, during the epidemic ſeaſon. Such wards may alſo be fumigated with fragrant gums, as thoſe of *Myrrh*, and *gum copal*, with the addition of *Caſcarilla bark*; but above all the ſteams of boiling vinegar, to which *lavendar flowers* have been added, with a ſufficient quantity of *camphire*, may frequently be taken into the lungs, as the moſt grateful and effectual preſervative that perhaps is to be found.

That excellent practical author, Dr. *Lind* obſerves, the admiſſion of pure air, or the moſt perfect ventilation, is not always ſufficient to diſlodge the *infectious matter* from the place of its reſidence; he therefore recommends the application of *fire* and *ſmoke*, as the moſt certain and effectual means of extinguiſhing the ſource of contagion: He alſo adviſes the burning of wood fires, for, it has been experimentally found, that the ſmoke of burning wood not

not only tends greatly to abate its violence, but alſo to preſerve the uninfected from its malignant power.

He directs the wards, or infected chambers of the ſick, to be cloſely ſhut up, and then fumigated with *brimſtone ſtrewed on charcoal fires*; he further adds, that except the *plague* itſelf, no infection more peſtilental and mortal has been known to prevail any where, than thoſe in ſome ſhips; yet he never heard of any ſhip which did not immediately become healthy, after being thus carefully and properly fumigated; and if we are not miſinformed, ſome very late accounts from abroad aſſure us, that the *plague* itſelf was prevented by methods of the like kind.

In the year 1775, when the Child-Bed Fever again prevailed with great violence, at the Weſtminſter-Lying-In Hoſpital, and proved fatal to ſeveral women; I directed the beds in the wards to be taken down, the curtains to be waſhed, and bed-

cloaths placed in the ſun, in a ſtream of freſh air : The wards being then cloſely ſhut up, were fumigated for two days with *Sulphur*, *Pitch*, and *Tobacco Stalks* ſtrewed on charcoal fires ; after which the walls were white-waſh'd, and the wards being thoroughly cleaned, were ſprinkled with *camphorated vinegar*. The beds being then replaced, ſuch was the ſalutary effects of this method, in putting a ſtop to the diſeaſe, that of ſeveral patients ſoon after admitted, only two were ſeized with it, one of which died.

Next to the ſmoke of burning wood, eſpecially *ſpruce*, or that of the teribinthinate kind ; he eſteems the fumes of gunpowder, for purifying a tainted air. All bodies, during their conſumption by fire, afford a large quantity of *mephitic air*, which has been found powerfully to reſiſt putrefaction ; and upon this principle, I believe, the good effect of the preceding method ſolely depends.

Experi-

Experiments ſhew, that animals cannot long ſurvive, nor flame ſubſiſt, without the acceſſion of freſh air; even a common candle will require a gallon of this fluid in a minute. Conſidering therefore, that the atmoſphere is continually injured by the corruption of periſhable bodies, and the effect of artificial fires, with thoſe natural, and more immenſe ones, proceeding from volcanos; it ſeemed a matter of wonder, how the air could ſtill preſerve its original purity; 'till Dr. *Prieſtly* diſcovered, that the perſpirable matter or *effluvia of vegetables* is the grand reſource, and ſovereign remedy which nature applies to reſtore the ſalutary principles of air, thus injured and rendered unfit for reſpiration.

From this circumſtance, it will appear no irrational caution, to place pots of myrtle, ſouthern-wood, or mint in the chamber of the ſick, during the *epidemical ſeaſon*; as thoſe vegetables are continually throwing off their *antiſeptic vapor*. But it is to be

obſerved, that the good thus produced is not owing to any aromatic quality ; for vegetables of an offenſive ſmell, and even ſuch as were almoſt inodorous, were found moſt powerful in reſiſting the putreſcent quality of air.

Hence the cuſtom, with ſome of putting green boughs round the ſick, or ſprinkling the ground with new gathered leaves, and flowers, on the ſuppoſition of affording refreſhment, and diſpoſing the patient to ſleep, does not ſeem ill-founded ; for although they were ignorant how ſuch relief was procured, they might, notwithſtanding, have ſagacity enough to obſerve the effect was certain.

The *Matrons* of all *Public Hoſpitals*, in caſes of extreme danger, ought to adminiſter the medicines preſcribed with their own hands; they ſhould alſo take care the *nurſes* do their duty, and frequently ſupply the patients with clean, well-aired linen ; otherwiſe, the warmth of weather in ſummer, added

to

to the heat of body, may occaſion a corruption of the lochia, which will taint the air, and not only render it offenſive, but highly noxious.

During the firſt week or ten days after delivery, women ſhould wear half ſhifts and ſkirts, for the greater convenience of changing them with eaſe, as occaſion may require.

In ſuch *Hoſpitals* there ought to be particular beds or couches, for the ſake of delicacy and neatneſs, as well as to keep the reſt dry and clean: Theſe delivery-beds, as they are called, being placed upon caſters, may be brought cloſe to another bed prepared for the reception of the patient, into which ſhe may be gently conveyed, after reſting a little to recover her ſtrength and ſpirits from the fatigue of labor: This method will afford exceeding comfort and refreſhment to a woman after delivery, and will

alſo contribute greatly to her recovery, by removing her from the wet linen, which, otherwiſe, would ſubject her to take cold.

The mattreſſes and bedding ſhould often be inſpected, and frequently expoſed to the ſun and open air; and all foul linen ſhould immediately be removed out of the wards; together with the putrid, bilious fluids, rejected by the ſtomach or bowels.

When the patients at the *Weſtminſter Lying-In Hoſpital* were helpleſs, and unable to ſit up in bed to take refreſhment; they were ſupported by a kind of *half chair*, made for that purpoſe, and placed behind their backs, which was found extremely uſeful on ſuch occaſions.

SECTION

SECTION IV.

History and Treatment of the Child-Bed Fever further illustrated by Cases, with Practical Remarks on the whole. Also occasional Animadversions on the Section *of the* Pubes, *as a substitute for the* Cæsarian Operation.

THE reader will find that the following Cases were not set down with any intention to shew how successfully they were treated; but rather as examples of the dangerous tendency of this disease, which was oftentimes such as neither art or nature had power to subdue: I have paid no regard to the caution of omitting some of those where it was fatal, or of inserting others when the event was favorable; in short, I have no where put a mask on the face of the disease, or suppressed the mention of a single circumstance which I thought could prove of the least use in

being known ; but have, at all events, deſcribed it as I found it in the *epidemical ſeaſon*, and as it will be found by others, under the like circumſtances, viz. dangerous in its nature, and difficult of cure.

From what has been advanced, it appears that the human body is ſo conſtructed, as only to ſuſtain violence to a certain degree ; and therefore, if the force of a dangerous diſeaſe be ſuperadded to that indiſpoſition brought on the habit by delivery, it is generally then much more fatal than at any other time ; ſo that certain maladies which might have been ſeparately endured, become deſtructive by their united power. In the *ſmall pox*, for inſtance, taken in the natural way, about one in ſeven or eight may probably die ; but ſuppoſing thoſe affected with it to be women at the *point of delivery*, very few of the whole number will be found to recover.

CASE

CASE I.

Elizabeth Waters, a young woman of a ſtrong healthy habit, aged twenty one, was delivered in the *Weſtminſter New Lying-In Hoſpital*, *April* the 7th, 1768. On the fourth day after, ſhe complained of head-ach, which ſhe ſaid was owing to her being diſturbed by another patient in labour, who lay near her in the ſame ward: her pulſe was tolerably good, and neither very full nor frequent, but as her head-ach continued till the next morning; eight ounces of blood were then taken from the arm, which afforded her much relief. She had milk in her breaſts, and the *lochia* were diſcharged in due quantity, without any pain or tenſion of the belly. Two days after, the pain in her head returned with violence, attended with thirſt and fever, for which ſhe loſt ſeven ounces more blood: ſhe took a laxative mixture, which had its proper effect, and afterwards the ſaline draughts

draughts every four or five hours, from which ſhe ſeemed better; but as the pain in her head ſtill continued, I directed *leeches* to her temples the next evening, which gave her eaſe.

She was apparently much better for a few days, her appetite being good, and her aſpect chearful; but ſoon after relapſed, and was ſeized with ſevere and excruciating pains, like thoſe of acute rheumatiſm, in her limbs and body: She became quite helpleſs, and was not able to turn herſelf in bed without aſſiſtance.

I attended this patient with Dr. *Brickenden*, one of the phyſicians of the Hoſpital. We directed antimonial powders, which ſhe took as occaſion required, but without much relief; as the pains continued, with a ſlow, lingering fever, for ſeven or eight days; and as they abated, were ſucceeded by a number of bluiſh diſcolorations on the ſkin, which were terminated by abſceſſes

in

in different parts of her body; As they advanced ſlowly, and did not point with tenſion and redneſs, but were ſoft aud of a pale, livid hue; we directed the *bark*, with wine and good nouriſhment to quicken the circulation, and aſſiſt nature in bringing them forwards, as they plainly appeared of the critical kind; but notwithſtanding they were conſtantly poulticed twice a-day, not one of them came to ſuppuration ſo as to break, even at the end of ſix weeks from the beginning of the diſorder; ſhe was therefore removed to the *Weſtminſter Hoſpital*, where the abſceſſes, in number *eighteen*, as I was informed, were opened, and after remaining ſome weeks there, ſhe at laſt recovered; and being cured and diſcharged, came and returned thanks at the *Lying-in-Hoſpital*.

CASE.

CASE II.

Elizabeth Becket, aged twenty-ſix, and of a healthy conſtitution, after a difficult labor which laſted ſeveral hours, was delivered of a dead child at the *Hoſpital*, *February* the 18th, 1769.

She was affected with head-ach, and ſick at ſtomach, from the day of delivery, but did not vomit.

February 19. Her pulſe being frequent, and ſomewhat full and ſtrong, and the head-ach violent, I directed eight ounces of blood to be taken away; an emollient clyſter was then adminiſtered, and ſhe afterwards took the ſaline draughts, with *ſperm. ceti* every five or ſix hours. Towards evening ſhe had four bilious ſtools, and appeared better.

20th. Her thirſt was exceſſive, her tongue white and dry, ſhe perſpired little, and had three evacuations by ſtool; ſhe diluted

diluted plentifully with weak tea, and took her medicines as before.

21ſt. Slept little, her eyes were bloodſhot and prominent, and her head-ach not abated; her ſkin was dry, and her pulſe being ſtronger than uſual in ſuch caſes, eight ounces more blood were taken away.

22d. She ſlept the preceding night; her head-ach greatly relieved, and all the febrile ſymptoms manifeſtly abated; notwithſtanding, ſhe remained weak and helpleſs, and had involuntary ſtools for a few days after; but as her ſteength increaſed, this inconvenience went off, and in a fortnight's time from the firſt attack, ſhe perfectly recovered.

The *milk* continued till the fifth day, and the *lochial diſcharge* did not ſeem altered from its natural ſtate.

REMARKS.

I would not here have it inferred that theſe two patients recovered becauſe bleeding

ing was directed; but rather from their having this fever when the ſeaſon was not *epidemical*; for I have already remarked, that the attack is not then ſo violent, and all the ſubſequent ſymptoms are leſs ſevere: The ſhivering fit in the beginning is generally leſs, and the diarrhæa and bilious vomiting are either inconſiderable, or do not appear at all; the pulſe is neither ſo quick or weak, and the diſeaſe, inſtead of being terminated about the tenth or eleventh day, is often protracted beyond that period, from *acute* becoming *truly chronical*, and then ſeldom proving fatal.

Eliz. Burges was the firſt patient ſeized with *Child-Bed Fever* in the epidemic ſeaſon; ſhe was delivered on the 6th of *December*, 1769, and died about twelve days after; but the particulars of her caſe I cannot diſtinctly remember.

CASE III.

Juliana Thompſon, aged twenty-one, and of a delicate habit, having received a ſtroke on

on her belly, was ſuddenly ſeized with labor, and delivered in a chair as ſhe was coming to the hoſpital, *December* the 7th, 1769.

She continued pretty well for the two firſt days, but was rather languid and dejected in ſpirits, having had a ſlight uterine hæmorrhage from the time ſhe received the hurt to that of being delivered.

December 10. Was feveriſh and thirſty, and complained of great pain in her head; there was no appearance of *milk*, and the *lochia* where diſcharged in natural quantity. She took lenitive elect. with oil of almonds, which procured her two or three evacuations; thirſt and fever were abated, and her head-ach was much better.

11. Continued better, and was able to ſit up in bed.

12th. Her face was florid, her cheeks were beſet with a deep crimſon color, and her pulſe was quick and weak; the tongue looked

looked clean, though her thirſt was intenſe; ſhe diluted plentifully with tea and barley-water; the ſaline mixture with ſperm. ceti was given occaſionally, and a clyſter of beef-water directed to be adminiſtered. Towards evening, difficulty of breathing came on, with oppreſſion at her breaſt, and pain in her left ſide.

When I viſited this patient with Dr. *Ford*, we directed the *tartar emetic* in the third part of a grain to be given every four or five hours, and a *bliſter* to be applied to her ſide; the emollient clyſter was alſo repeated.

She had ſix or ſeven motions in the night, and the next day appeared eaſier, but was languid and weak; her pulſe continued very quick, and the bliſter did not riſe.

As there was ſediment in her urine, with ſigns of remiſſion, we though it adviſeable to try the *bark* in decoction; but it purged her immoderately, although the

ſimple

ſimple cinnamon-water was added, and therefore it was left off.

Next day ſhe complained of pains ſhooting downwards from her ſtomach to the navel, for which *a volatile liniment* was applied, but as it did not procure much relief; we directed a *warm bath* the day following, in the manner already mentioned at p. 119; a long flannel gown being next her ſkin, ſhe was afterwards put into a warm bed, and ſupplied with beef-tea and other fluids, in order to encourage perſpiration.

Bladders half filled with warm water, and wrapped in flannels, were applied to her ſtomach and ſides, where ſhe ſtill complained of pain and oppreſſion, and the emollient clyſters were alſo continued, with gtt. xxx of *thebaic tincture*.

The next day her belly began to ſwell, though the purging ſtill continued; ſhe had partial, faint ſweats on her breaſt and face, and was now extremely weak, though

perfectly ſenſible, but could take nothing except nouriſhment for ſeveral days before her death, which happened on the 25th of *December*; being the fifteenth day from the time of the febrile attack.

Margaret Walker, another patient in the ſame ward, was delivered on the 11th of *December*, and ſickened ſoon after the former: They both lay ill at the ſame time, and labored under ſymptoms ſo exactly ſimilar, that it would be unneceſſary to ſet down the particulars of this laſt caſe: She died on the 21ſt of the ſaid month, nine days after being ſeized with the diſeaſe.

CASE IV.

Mrs. Y. a lady near the *Abbey* in *Weſtminſter*; young, and of a ſtrong and healthy habit, after a labor perfectly natural, was ſuddenly attacked with a violent ſhivering fit, the third day after delivery, being the 1ſt of *January* 1770: She

She was alſo affected with a thrilling, uncommon ſenſation, as if a cold, wet ſheet had been wrapped round her body.

She complained of head-ach, and was ſick at ſtomach; during the exceſs of febrile heat, her pulſe beat a hundred and thirty ſtrokes in a minute, and was more full and ſtrong than uſual in this fever; her countenance was florid, and much altered from its natural ſtate, having an unuſual ſtare with her eyes.

Small portions of *emetic tartar*, viz. the fourth part of a grain, were given with the ſaline mixture, every four hours: She diluted plentifully with barley water and balm-tea, but did not perſpire.

Second day after the attack, a violent bilious purging came on; the antimonial powders were then given by longer intervals; the ſaline mixture was diſcontinued, and emollient clyſters were directed: She took rice-water, and the white decoction for common drink.

The fever and diarrhœa continued violent for three or four days; her belly ſwelled, and ſhe frequently complained of much pain at the bottom of her ſtomach, and towards the navel: Sometimes there ſeemed to be obſcure ſigns of remiſſion in the morning; but towards evening, the fever again returned with violence.

As ſhe apparently grew worſe, and as I was, at that time, ill and unable to give her due attendance, I deſired Dr. *Hunter* might be called in, which was accordingly done. He directed eight ounces of blood to be taken away; the clyſters to be repeated, and a bladder, filled with ſcalded bran, to be applied warm to the umbilical region. The next day, I met Dr. *Hunter* and Dr. *Hugh Smith:* The ſaline draughts, with ʒ ſs of *confect. damocratis*, were directed every ſix hours, and in other reſpects, much the ſame method was purſued as before.

When

When Dr. *Smith* visited this patient with me the day following, we found her delirious, and therefore, instead of the confect. damocratis, ℈i of the *pulv. contrayer. c.* was added to each saline draught, which was ordered to be continued as before: Four spoonful of *tincture* of *roses* were given by intervals and clysters of chicken-water directed to be administered frequently. The two following days I was prevented from seeing her; during which, she took medicines of the warm cordial kind, but without perspiration, or any abatement of the febrile symptoms.

A few days before her death, she was delirious; her eyes were blood-shot and filled with involuntary tears; a *miliary eruption* appeared very thick on her breast and body, and her stools, which were frequent and very fœtid, came away insensibly.

Leeches were then applied to her temples; the clyſters were repeated, and her ſtrength was ſupported by nouriſhment and wine, but all without a ſalutary effect; for on the twelfth of *January* ſhe died; and ſeveral hours before her death became perfectly ſenſible.

The *lochia* were diſcharged in due quantity, but there was no ſecretion of *milk*.

REMARKS.

The ſigns of putrefaction in this patient before death, were very evident: The ſmell of the room ſeveral days after ſhe was buried being intolerably offenſive, notwithſtanding it had been thoroughly cleanſed and fumigated with frankincenſe.

Purgative medicines, which are found ſo extremely beneficial in the ſecondary, putrid fever after the ſmall-pox, cannot here be employed to advantage, becauſe of the tenderneſs of the bowels and exceſſive loſs of ſtrength from the preceding diarrhæa;

ſo

ſo that *Peruvian bark*, with *opiates* and frequent nouriſhment, ſeem moſt likely to afford relief, where that is in the power of medicine; but unfortunately, the ſtate of the patient is generally at this time ſuch, for the reaſons already given, as excludes all human aſſiſtance.

Where the ſtools are exceſſively putrid, it might be worth while to try the effects of fluids which contain a large quantity of fixed air, given in clyſters, as they have been found powerfully to reſiſt putrefaction, agreeable to ſome late hints in Dr. *Prieſtly*'s curious tract on the method of impregnating water with fixed air.

Elizabeth Tomkins, alſo died of this fever, the 15th of *January*, 1770.

CASE V.

Mary Evans, aged twenty-nine, was delivered *February* the 5th, 1770, without any uncommon circumſtance attending her labor, which was eaſy and natural.

Her habit of body was apparently good, but being crooked and narrow-chefted, ſhe was ſubject to habitual difficulty of breathing. She took an anodyne draught, with ſperm. ceti, and paſſed a good night after delivery.

February the 6th. Perſpired gently, and was free from pain and fever.

7th. At ſeven in the morning attacked with a ſlight ſhivering fit which laſted about fifteen minutes, but was not ſucceeded by any violent degree of feveriſh heat; ſhe took the antimonial powders every three or four hours, and fell into a gentle perſpiration, which ſeemed to relieve her; an emollient clyſter was alſo directed.

8th. Reſted the preceding night, and continued tolerably eaſy; ſhe had one bilious ſtool in the morning, was weak and languid, but free from pain and got ſome ſleep.

9th.

9th. At nine in the morning had a ſhivering fit, which was relieved by drinking warm fluids and the application of hot flannels to her extremities and ſides; in a few hours the cold fit in a ſlight degree returned, and was ſucceeded by fever, and partial ſweats on her breaſt and temples; ſhe had ſome reſt the former part of the night, but at two o'clock was waked by violent *gripings* and *tormina* in the bowels, followed by nine or ten bilious ſtools, after which ſhe had eaſe.

10th. About twelve at noon was ſeized with great difficulty of breathing, and in the time of inſpiration, affected with intolerable acute pain ſtriking down from her breaſt to the navel; but there was no tenſion or pain in the belly, nor any ſymptom that could ſtrictly be called uterine, the *lochia being neither fœtid or deficient in quantity:* her pulſe at the ſame time was quick, and unequal; but conſidering her great difficulty of breathing, ſix ounces of blood were

were taken away, and the following mixture was given occaſionally; a broth clyſter with gtt. xx. of thebaic tincture, was alſo directed, and ſhe took rice-water or decoct. alb. for common drink.

℞.

Lact. Ammoniac. ℥ *vii.*
Sperm. Ceti ſolut. ℥ *ii.*
Elix. paregoric. ℥ *iii.*

Fiat Miſtura cujus ſumat Cochleari a duo ſubinde urgente dolore vel dyſpnœa.

After bleeding, her pulſe became ſomewhat ſtronger, and its ſtrokes were more diſtinct and free; the pain and difficulty of breathing were a little abated, and ſhe paſſed a tolerable good night with refreſhing ſlumbers.

11th. In the morning ſhe was weak, but free from pain or much fever, and breathed with conſiderable eaſe; about three in the afternoon, ſhe became feveriſh again; and in the evening, her pulſe was quick and almoſt imperceptibly weak; her

her limbs were cold, and partial, clammy ſweats overſpread her face and temples.

I directed two ſpoonful of the following mixture to be given every two or three hours:

℞

Spec. e. Scord. c. cum Opio ʒ *i*

Aq. Cin. ſimp, ʒ *vi*

—Nucis Moſchat. ʒ *i*

Syr. e Cort. aurant. ʒ *ſs fiat Miſtura.*

An anodyne clyſter was directed as before: her extremities were kept warm with hot flannels, and ſhe paſſed a reſtleſs night, being delirious by turns. At four in the morning, ſhe had four black, fœtid ſtools, which were voided without pain. At ſeven, ſhe was perfectly ſenſible, and ſo continued 'till the hour of ten, at which time ſhe calmly expired, being the fifth day from the febrile commencement.

The *lochial diſcharge* was natural, and ſhe had milk at the uſual time, which left her ſoon after the febrile attack.

DISSECTION.

DISSECTION.

After making an inciſion into the abdomen, from the navel to each anterior angle of the os ilium, and turning down the muſcular flap over the pubes; ſeveral ounces of *white, curd-like pus* covered the ſurface of the inteſtines; it did not run out when the abdominal cavity was laid open, being of a much thicker conſiſtence than common matter. On further examination, I found the greateſt part of the *omentum* melted down, and formed this *purulent concrete*; and that the ſmall portion remaining, was much inflamed, and ſlightly adhered to the inteſtines. About a pint and a half of putrid fluid, like whey, was found in the cavity of the pelvis, mixed with concreted matter, and bits of black, grumous blood which ſeemed to have eſcaped from the eroded veſſels of the *omentum*.

The

The *uterus* was contracted to the ſize of a ſwan's egg, and ſhrunk down below the brim of the pelvis: On cutting into its cavity, ſmall flaky pieces of the falſe chorion were found adhering to its ſurface, but it did not contain any kind of fluid; in ſhort, this part, as well as the bladder, was perfectly ſound, and without the leaſt mark of inflammation, or any other morbid affection.

The ſubſtance of the *liver* was alſo ſound, but appeared pale, bloodleſs, and as if it had been par-boiled; the gall-bladder was full of blackiſh bile.

The *ſtomach* and *inteſtines* were in their natural ſtate; the firſt contained half a pint of a watery blackiſh fluid, which ſmelled like rancid bile; and in the laſt was found twice that quantity of dark green fluid, ſomewhat like that in the ſtomach.

The *ſpleen* was large but ſound.

The

The ſternum being raiſed, the lungs appeared of a livid hue, but on cutting into their ſubſtance, neither pus nor tubercles were found, nor any ſigns of inflammation; only the left lobe, at its poſterior and ſuperior part, ſlightly adhered to the pleura.

The veins on the neck and breaſt, on the left ſide, were enlarged to three times their natural diameter, and filled with blood of a bluiſh color.

REMARKS.

When reſpiration becomes extremely difficult and painful, in diſeaſes of the thorax or abdomen, eſpecially thoſe of the inflammatory kind, nothing affords ſuch ſpeedy relief as bleeding; for if the breath is drawn in with exceſſive pain, the lungs cannot be ſufficiently inflated, and therefore the blood will not be freely diſcharged from the heart through the pulmonary artery; hence

hence great oppreſſion and anxiety at the præcordia, ſo often complained of by the patient, which if not ſpeedily removed, may produce a mortal ſuffocation; but when *matter* is already unluckily formed, as in the preceding caſe, it will then plainly appear, that the patient is paſt the aſſiſtance of art, and that neither bleeding or any thing elſe can avail.

As this diſeaſe is principally ſeated in the *omentum*, and uniformly produces inflammation of that part (*epiploitis*) I think it will ſtrongly enforce a neceſſity for the early loſs of blood, together with the immediate application of *bliſters* to the ſides, or even to the umbilical region, to prevent, if poſſible, a morbid affection of the viſcera, which when once begun, is rapid in its progreſs, and generally fatal in the concluſion.

CASE VI.

Ann Hewatſon, aged twenty-ſix, and of a delicate habit, was delivered *February* the 5th,

5th, 1770. Her caſe was ſomewhat laborious, and the child's birth ſucceeded by a diſcharge of grumous blood from the uterus; the *placenta* came away without aſſiſtance, about an hour after delivery; ſhe was eaſy in the night, and had refreſhing ſleep.

6th. Being inclined to ſleep, took a ſperm. ceti emulſion without any opiate; perſpired gently, had a good night with natural reſt, and waked free from pain or fever. The lochial diſcharge was large in quantity and fœtid; but the belly was ſoft, and without pain.

7th. Continued eaſy, and had a moderate ſecretion of milk.

8th. About ten in the morning, after a breakfaſt of tea, without any evident cauſe, ſhe was ſuddenly attacked with *rigor*, which ſhook her whole body like an ague fit; the ſhivering laſted above half an hour, gradually becoming leſs and leſs intenſe from its onſet.

She

She took the emetic draught already mentioned, which operated mildly towards evening, the antimonial powders were given by due intervals: ſhe was extremely feveriſh, thirſty, and reſtleſs at night, but ſomewhat relieved by a free perſpiration, which came on about twelve o'clock.

9th. Had four bilious, frothy ſtools, preceded by violent pains and gripings in the bowels: an emollient clyſter was injected. Her pulſe was quick and weak, and the febrile ſymptoms violent. She had a very reſtleſs night, but only one evacuation and without pain.

10th. In the morning had nine or ten blackiſh ſtools, mixed with mucus, which were extremely offenſive, and attended with great pain: her pulſe was exceſſive quick, ſhe breathed laborioufly, as it were by jerks, and complained of great oppreſſion acroſs her breaſt and ſtomach, and of pain ſtriking down under her ſhoulder-blade, when ſhe drew in her breath. Eight ounces

of blood were taken away, and a ſtarch clyſter with gtt. xxx of tinct. thebaic. was adminiſtered: ſhe only now took rice-water, with a ſmall portion of brandy in it, as every thing elſe purged her immoderately. Towards evening, ſeemed better, her pulſe not ſo frequent, the pain and feveriſh ſymptoms were ſomewhat abated.

11th. Hot and reſtleſs, with faint ſweats on her breaſt, neck, and face. Emollient clyſter repeated, without the opiate; after which ſhe had ſome ſleep.

12th. The clyſter came away with a bilious ſtool; ſhe was manifeſtly much worſe, her pulſe being very quick, and thirſt intenſe; ſhe breathed laboriouſly, had a fixed crimſon color in her cheeks, and was alſo much troubled with a cough and viſcid phlegm, which ſhe was unable to expectorate, but found relief by taking the following mixture:

℞. *Sal.*

℞.

Sal. Abſinth. ʒ *i*

Succ. Limon. ʒ *iſs, peracta effervescentia, affund.*

Aq. Hyſſop. ʒ *vi*

Elix. paregoric ʒ *ii*

Syr. balſamic. ʒ *iii*

Fiat Miſtura cujus ſumat Cochlearia duo ſubinde pro re nata.

13th. She was ſupported by a cordial julep when faint, with light nouriſhment, and wine given by ſpoonfuls.

14th. Breathed with great difficulty, her pulſe very quick and weak. She had partial ſweats on her ſtomach, breaſt, and face, attended with coldneſs of the extremities, great langour, and all the ſymptoms of approaching death: ſhe died about two in the morning, being the eighth day after the attack.

REMARKS.

At the time of the ſhivering fit, which happened on the third day; this patient

had plenty of milk in her breaſts, which afterwards ſuddenly diſappeared, and was totally gone off in the evening; her breaſts being then looſe and empty: *the defect of milk is therefore manifeſtly a conſequence of the morbid cauſe.*

There is however one circumſtance, which, although it ſeems to controvert this opinion, I cannot help mentioning, viz. thoſe who were ſeized with this fever, were not ſubject to abſceſſes of the breaſts; and of thoſe who happened to have ſuch abſceſſes, I have never known one die; neither are they ſubject to diarrhœa, or much ſymptomatic fever, although the pain attending a ſuppuration of the breaſt, is often very acute.

The putrid diſcharge of *lochia* in this caſe, appears merely accidental, and only owing to a corruption of coagulated blood retained in the uterus, from the acceſs of air, like that which came away ſoon after delivery.

Phœbe

Phœbe Hill, aged nineteen, was alſo violontly ſeized with this fever on the eleventh of *February*, and contrary to my expectation, recovered, and was diſcharged in perfect health, on the 3d of *March*.

She was *blooded early and liberally*, and treated much like the former patient, but I did not take minutes of her caſe.

CASE VII.

Elizabeth Gardner, aged thirty-two, was delivered in the Hoſpital the 11th of *February*, 1770; her labor was natural, and her habit of body ſtrong and healthy, although ſhe had been troubled with a violent cough for ſeveral weeks before delivery.

12th. Her pulſe was full and frequent, attended with great thirſt, ſickneſs at ſtomach, and pain in her head and bowels; ſhe took ſaline mixture, with ſperm. ceti, and an emollient clyſter was adminiſtered: She alſo drank plentifully of

weak tea and barley-water, but did not perſpire, and paſſed the night without ſleep.

13th. I viſited this patient with Dr. *Ford.* Her pulſe being exceeding quick, and more full and ſtrong than uſual, attended with exceſſive thirſt, a violent head-ach and dry ſkin; we directed ten ounces of blood immediately to be taken away: A lenitive electuary was afterwards given, and an emollient clyſter, which produced two or three lax motions: She diluted plentifully, but did not perſpire, and paſſed a reſtleſs night.

The ſecretion of *milk* was moderate, and the *lochial diſcharge* natural.

14th. In the morning had ſome refreſhing ſleep, with gentle perſpiration; thirſt and fever ſomewhat abated: She had three evacuations by ſtool, but ſtill complained much of intolerable ſhooting pain in her head, eſpecially at the time of

of coughing: Eight ounces more blood were taken away, which was not near ſo ſizy as that firſt drawn.

15th. Much diſturbed by her cough in the night, perſpired little, and had no ſleep, though her head-ach was ſomewhat better.

16th. In the evening, her pulſe was extremely quick, thirſt immoderate, and all the febrile ſymptoms increaſed: ſhe was ſick at ſtomach, and had three bilious ſtools, with ſevere gripings in her bowels. The *antimonial powders* were given every three or four hours; about two hours after taking the ſecond, ſhe threw up a large quantity of viſcid phlegm, mixed with bile, and in the night had eight or nine black ſtools, the laſt very fœtid, and mixed with blood and mucus. She was delirious by turns, very reſtleſs, and had partial, faint ſweats on her breaſt and face.

The

The vitel. ovi, with mucilage of ſtarch, was diſſolved in rice-water, and injected as a clyſter; and ſhe took the following draught,

℞.

Sperm. Ceti. Solut. ℥ſs
Pulv. e Tragacanth. C. ʒi
Aq. Cin. Simp. ℥ iſs
Tinct. Thebaic. gtt. xv.
Syr. e. Mtcon. ℥ i *fiat hauſtus.*

17th. Her ſtomach and bowels were much relieved, ſhe ſlept in the night and waked refreſhed; her pulſe was weak but equal, and ſhe perſpired moderately.

18th. Better in all reſpects, but complained of great ſoreneſs in her bowels at the time of coughing: She took the anodyne draught at night, and the ſtarch clyſters were continued with light nouriſhment.

19th. Weak, but continued eaſy, her pulſe regular, and ſhe perſpired gently. Inſtead of medicines, ſhe now took calf's-

foot

foot-jelly, and nouriſhing broth, to repair her ſtrength.

20th. From this time gradually continued to recover, and the 9th of *March*, ſhe was diſcharged from the hoſpital in perfect health.

Ann Williams, who was delivered in the hoſpital on the 14th of February, was ſeized with this fever, and recovered under the *like treatment.*

Elizabeth Couſenitt, of a ſickly, conſumptive habit, alſo had the fever the 23d of *February*, and died the 3d of *March*: There was no ſecretion of *milk*, but the *lochial diſcharge* was natural. She was treated in the uſual manner, but *not blooded.*

CASE VIII.

Ann Simms, aged twenty-two, apparently healthy and ſtrong, was delivered on *Tueſday* the 6th of *March*; her caſe was ſomewhat laborious, the child's head being

being large, and detained ſeveral hours within the bones of the pelvis · An emollient clyſter was directed in the evening, and ſhe took an anodyne draught ; paſſed a reſtleſs night, and without the leaſt perſpiration.

7th. Feveriſh and thirſty, pulſe quick and ſomewhat full, and her ſkin dry. She took the ſaline mixture, and diluted plentifully with nitrous drink ; a clyſter of beef-water was given in the evening ; had a very indifferent night, and little reſt.

8th. A little better ; ſhe had milk in her breaſts, and being coſtive, complained of head-ach. A cathartic clyſter was adminiſtered in the evening, which procured two evacuations, and her head was eaſier.

9th and 10th. Somewhat feveriſh, and reſtleſs, though free from pain.

11th. Continued very reſtleſs ; the pulſe was quick, her tongue white and dry, and her thirſt intenſe, without any perſpiration:

ſpiration : At night, ſhe took a ſaline draught, with ten grains of *nitre* and gtt. xv. of *thebaic tincture*, but had ſcarcely any reſt.

12th and 13th. The febrile ſymptoms continued, and though ſhe diluted plentifully, her ſkin remained parched and dry. Six grains of *James's Powder* were then adminiſtered, which puked her twice, and afterwards procured her three motions : At night I directed her another powder and an emollient clyſter, with gtt. xxx. of *thebaic tincture :* She had ſome ſleep in the night, but no free perſpiration.

14th. In the morning apparently better, and diſpoſed to ſleep, but towards evening, was ſick at ſtomach, and threw up a large quantity of bitter, glairy fluid ; in the night ſhe was ſeized with ſevere pains in her bowels, followed by ſeven or eight bilious ſtools, and afterwards had ſome ſleep.

15th.

15th. Her pulſe quick, ſkin dry, and her hands tremulous; her looks were wild and ſtaring, and her cheeks beſet with a deep crimſon hue, ſhe breathed laborioufly, and complained of great pain in her ſide, and belly towards the navel: At night ſhe had ſix black, watery ſtools; after which an anodyne draught and a ſtarch clyſter were directed: She ſeemed relieved, and ſlept for ſeveral hours.

16th. The pain in her belly and ſide was but little abated; ſhe was extremely hot and reſtleſs, and could not ſweat; I directed three ſpoonful of the following mixture to be given, which produced no perſpiration although ſhe took it every two or three hours:

℞.

Sal. Volat. Ammon. ʒ *i*
Succ. Limon. recent. expreſs. ℥ *iſs miſce*
Aq. Alex. ſimp. ʒ *vi*
Tinct. Croci ʒ *iii*
Syr. ejuſd. ℥ *ſs fiat Miſtura.*

17th.

17th. Much worſe, in all reſpects; the pulſe being exceedingly quick, and almoſt imperceptibly weak; cold, clammy ſweats overſpread her breaſt and face, which became now pale and death-like, and about twelve at noon ſhe expired.

The *lochia* were diſcharged in natural quantity, and ſhe had milk in the breaſts till within a day or two of her death.

DISSECTION.

When the body was opened, the next day in the evening; the inferior lateral portion of the *omentum* was found much inflamed, its veſſels being turgid, and as it were injected with blood, but the greater part of it was deſtroyed by *ſuppuration*; what remained, adhered to the ſmall inteſtines; which were alſo ſlightly cemented to each other, where their convolutions came in contact.

The

The *uterus* was contracted to the ſize of a large fiſt, and lay at the bottom of the pelvis; the *fundus uteri* ſeemed to partake of the general inflammation which had apparently firſt affected the *omentum*, and afterwards ſuperficially overſpread the *inteſtines*, *myſentery* and contiguous parts; but on cutting into its ſubſtance, it was perfectly firm and ſound, although it had a livid appearance towards the cervix and os internum, which might probably be owing to the violence ſuſtained by thoſe parts in the time of labor.

In the cavity of the pelvis was found above a pint of *Whey-colored fluid*, with three or four ounces of *thick matter*, which did not uniformly mix with it, but floated in it like curds in whey, together with ſeveral bits of black, coagulated blood.

The *liver* was found, but remarkably pale, and the gall-bladder turgid with a large quantity of *olive-colored bile*; in conſiſtence, equal to that of honey, and with difficulty,

difficulty, ſqueezed through the cyſtic duct. The ſtomach contained about half a pint of black, oily liquor, reſembling that which was voided by ſtool.

The contents of the *thorax* were ſound and without any morbid appearance; except a ſlight adheſion of the right lobe of the lungs to the pleura.

CASE IX.

Ann Cook, aged twenty, of a delicate habit, after eaſy labor was delivered in the hoſpital the 13th of *March*, 1770.

The ſame evening ſhe complained of ſickneſs at ſtomach, with pain in her bowels, and paſſed a reſtleſs night.

14th. Continued ſick at ſtomach; took the *antimonial emetic draught*, and threw up a large quantity of bilious, ropy fluid from the ſtomach; alſo had one lax ſtool; after which, a broth clyſter was injected with

with thirty drops of *thebaic tincture*. She paſſed a tolerable night, perſpired moderately, and had ſome refreſhing ſleep.

15th. Free from pain in the bowels, and had a good night's reſt.

16th. Sick at ſtomach, and vomited a quantity of poraceous fluid; her pulſe was quick, and her thirſt exceſſive: She took the *antimonial powders* every four or five hours, but perſpired little, and had a reſtleſs night.

17th. In the morning complained of great ſickneſs, and burning heat at ſtomach with violent head-ach; and threw up near a tea-cupful of dark green liquor, which ſeemed to be almoſt *pure bile*: She had alſo five bilious motions.

At night ſuddenly ſeized with acute pain in her ſide, and great oppreſſion at her breaſt; being likewiſe almoſt ſuffocated with tough phlegm, which ſhe could not bring up: Her pulſe was exceeding quick and ſomewhat weak, and her countenance ghaſtly; but

but as ſhe breathed with vaſt difficulty, I directed ſeven ounces of blood to be taken away, and that ſhe ſhould draw in the ſteams of warm water into her lungs at each inſpiration: She afterwards took one of the antimonial powders, which occaſioned her to vomit twice, and gave her two motions. She was exceeding weak, but breathed with more freedom and eaſe; An emollient, anodyne clyſter was injected, and ſhe was ordered a ſpoonful or two of warm ſpiced wine when faint.

18th. In the morning ſhe breathed with more eaſe, and was free from the load at her breaſt: her pulſe beat regularly, but was extremely languid: Bladders with hot water wrapped in flannels, were applied to the ſoles of her feet; ſhe took light nouriſhment often, and now and then a ſpoonful of ſpiced wine.

19th. Had refreſhing ſlumbers the preceding night, and gained ſtrength: nothing was now given but frequent nouriſhment.

20th. Continued better; directed the following draught to be taken twice a-day, which greatly increaſed her ſtrength:

℞.

Infus. Peruv. Cort. ℥ *iſs*
Aq. Cin. Spt. ʒ *iii*
Spt. Lavend. c. gtt. xxx
Confect. Alkerm. ʒ *i fiat hauſtus.*

In about a week's time ſhe was much recovered, and went out of the hoſpital the 2d of *April* in perfect health.

CASE X.

Philadelphia Ford, aged twenty-eight, was delivered the 14th of *March*, 1770, and well till the third day, when ſhe complained of great pain in her head, with laſſitude and inability to turn in bed: Her countenance was florid; had a brown dry cruſt on her tongue, and unquenchable thirſt: Her appetite left her, and there was not milk enough to give ſuck. The medicines uſually adminiſtered on ſuch occaſions

caſions had but little effect; but all the febrile ſymptoms were much relieved by the appearance of a red cutaneous ſwelling on the joint of her great toe: In a few days, another ſwelling of a livid color appeared below her hip; they were poulticed and fomented, but did not ſuppurate; the laſt threw off a black mortified ſlough, and diſcharged ſanious ichor. I directed her a ſtrong infuſion of *bark*, with *tinct. aromat.* and by allowing her wine and good nouriſhment, ſhe recovered.

Ann Deuſe, of a thin, weakly habit, died of this fever, notwithſtanding various remedies were tried for her relief: She had a natural labor, and remained well for the firſt three days; inadvertently ſhe ſat up on the fourth day, and found herſelf not well towards evening: On the fifth, was ſeized with a *ſhivering fit*; the next day complained of pain in her belly and ſide; and on the 29th of *March* ſhe died, being the ſixth day after the attack.

She had milk in her breaſts, and the *lochial diſcharge* was natural.

Bleeding in this caſe was not thought eligible. I have not known any inſtance beſides this, where the diſeaſe proved fatal in ſo ſhort a time, when it commenced ſo late after delivery, being in general, then moſt favorable.

The body being opened, almoſt exactly the ſame morbid appearances preſented as in the preceding caſes; the *omentum* was deſtroyed, and a large quantity of *matter*, and *purulent ſerum*, collected in the *abdomen*. The *inteſtines* were ſuperficially inflamed, but the *uterus* and all the other *viſcera* were perfectly ſound.

Rebecca Day, of a healthy, robuſt habit, after a natural delivery, was ſeized with the head-ach and ſickneſs at ſtomach; two days after, a *miliary eruption* appeared on her breaſt and body, but without relief; for all the febrile ſymptoms gradually increaſed,

creaſed, and ſhe died the 25th of *April*, being the tenth day after delivery.

The *lochial diſcharge* was not defective, neither was there want of milk, till after the febrile attack.

The body was opened, but as the appearance of the *affected parts* was much the ſame, and only differed in degree from thoſe already mentioned; a recital of particulars would be unneceſſary.

CASE XI.

Harriot Trueman, young and of a ſtrong, healthy conſtitution, May the 2d, was delivered of a *monſtrous child*, which preſented with the arm; ſo that the caſe was preternatural in a double ſenſe.

As this patient was of a plethoric habit, and ſubject to cough, I directed ſeven ounces of blood to be taken away, before the delivery was attempted; to prevent in ſome meaſure, the danger of inflammation, which might ariſe from the violence applied in turning the child.

After delivery, an emollient clyſter was directed, and a ſaline mixture with ſperm. ceti and ſyr. e mecon. of which ſhe was to take three ſpoonful every four or five hours, as occaſion required; ſhe was free from pain, and had a good night.

3d. Perſpired gently, continued free from pain and fever, her cough leſs violent, and ſhe paſſed her water with eaſe; the mixture was continued, and a clyſter as before, given in the evening: ſhe remaind eaſy during the night, and reſted well.

4th. Continued perfectly eaſy, and paſſed a good night: the *lochial diſcharge* was natural, and ſhe had no pain in the region of the uterus.

5th. About three in the afternoon, was ſeized with difficulty of breathing, and oppreſſion acroſs her breaſt and ſtomach; ſeven ounces of blood were immediately taken away, which was exceeding ſizy. The ſtrokes of her pulſe were weak, quick,

and

and indiſtinct after bleeding, but ſoon became leſs frequent, and more ample and ſtrong; ſhe found herſelf much relieved, and could then breath with freedom; was diſpoſed to gentle perſpiration, and refreſhing ſlumbers in the night; the mixture and emollient clyſter were repeated.

The ſecretion of *milk* was moderate.

6th. She continued eaſy, had a natural evacuation by ſtool, and ſlept by intervals.

7th. At four in the morning, her difficulty of breathing and cough returned; ſhe was ſick at ſtomach, vomited up a ropy, bilious fluid, and had five *black ſtools*. Her pulſe was weak, frequent and intermitting; her breaſts ſubſided, and the milk ſuddenly diſappeared.

I directed a powder, with the third part of a grain of the *tartar emetic*, and a ſcruple of the *pulv. Contrayer. c.* to be repeated every four or five hours after, if the firſt had no ſenſible operation by ſweat or vomiting, and alſo an emollient clyſter.

She paſſed a reſtleſs night without perſpiration, her belly began to ſwell, and ſhe had ſeveral involuntary bilious ſtools.

8th. Reſpiration was frequent and laborious, pulſe quick and weak, her ſkin dry, and ſhe complained much of pains in her ſides, and acroſs her belly near the navel, at the time of drawing her breath.

I directed a fomentation to her belly and ſides, the powders to be repeated, and a ſtarch clyſter to be injected in the evening, with gtt. xxx of the *tinct. thebaic.*

She took rice water with a ſmall quantity of brandy, for common drink, and a ſpoonful of ſpiced wine when faint.

The involuntary purging ſtill continued violent, and ſhe had no reſt.

9th. Complained of pains in her breaſt and belly, the difficulty of breathing increaſed, her pulſe was quick and almoſt imperceptibly weak; ſhe was delirious by turns; had cold clammy ſweats on her neck and face, and about four the next morning, ſhe expired.

DISSECTION.

DISSECTION.

When the body was opened, the greateſt part of the *omentum* was ſuppurated, and converted into *thick matter*; the remaining portion, being much inflamed and ſlightly adhering to the folds of the *inteſtines*. The cavity of the *pelvis* and *abdomen*, contained about three pints of *putrid ſerum*, with clots of concreted pus, and ſmall pieces of coagulated blood.

The *uterus* was much contracted, and ſhrunk down to the inferior part of the pelvis: its ſubſtance was ſound, 'tho the os tincæ was ſomewhat livid, which appearance not being conſidered as morbid, has already been taken notice of.

Scarcely any marks of inflammation appeared on the inteſtines or meſentery; the *liver* was apparently ſound, and the *gall-bladder* full of *yellow bile*, which had pervaded its coats, and dyed the contiguous parts

parts of a ſaffron-hue; but this I did not look upon as a morbid appearance.

The *ſtomach* contained a pint of *blackiſh fluid*, like that voided by ſtool, and which had the appearance of putrid bile.

On raiſing the ſternum, two ounces or more of *matter* was lodged upon the *mediaſtinum*; and the *thorax* contained a ſmall quantity of the ſame kind of whey-colored fluid as that found in the abdomen: The *lungs* were apparently ſound, only the left lobe adhered ſlightly to the pleura, at its poſterior part.

REMARKS.

The extravaſion of purulent fluid in the abdomen, by hindering the free play of the diaphragm, will, in a great meaſure, account for the difficulty of breathing; particularly as the lungs were ſtill further oppreſſed by the ſame kind of fluid in the thorax.

As

As the blackiſh fluid found in the ſtomach reſembled putrid bile; I mixed a ſmall quantity of it with vinegar, but could not perceive any effervescence, neither did the vinegar change it green; but this perhaps might be owing to the natural properties of the bile being altered by putrefaction.

Hippocrates, in his Aphoriſms, takes notice, that *black excrements*, reſembling black blood, are to be looked upon as a bad omen; and that *black bile* rejected either upwards or downwards at the beginning of a diſeaſe, is a *mortal ſign*; which obſervation is verified by repeated experience in the advanced ſtate of diſeaſes, as well as at their beginning.*

The color of the excrements paſſing through the alimentary tube, principally depends upon the quantity and quality of *bile*; thus, where there is a defect of it, the ſtools are pale, and the body coſtive, and

* *Hippocrat.* Aphoriſm. Sect. quart. Aphor. 21 et 22.

and on the contrary, when it abounds, they are yellow or greeniſh, and generally frequent.

Black, fœtid ſtools, ſuch as were obſerved towards the end of *Child-bed Fever*, almoſt certainly denote *internal mortification*, and therefore, it is no wonder they were ſo often followed by a fatal concluſion; but ſuch a mortification cannot affect the color of the excrements, except by means of the bile, which after abſorption of the corrupted fluids into the blood, will at laſt become putrid, black, and acrimonious.

There was ſomething very ſingular in this woman's child, which was *monſtrous*: It had no thumbs; the parietal bones were wanting; and not above two ounces of brain was found in the cavity of the ſcull: The upper part of the ſcalp adhered ſtrongly to the internal ſurface of the *placenta*, ſo that when the child was extracted, this part was pulled along with it, though luckily

luckily, it was not attended with any degree of flooding.

Elizabeth Pool, young, and of a healthy conſtitution, was delivered the 15th of *May*, and ſoon after affected with the ſymptoms of this fever, but in a degree leſs acute than uſual: Her caſe was much like that of *Elizabeth Waters*; for though ſhe laboured under a ſlow, lingering fever for a long time, her appetite remained.

She was deprived of the uſe of her limbs for ſeveral days, yet the ſevere pains of which ſhe complained, were not, like thoſe of the former, followed by abſceſſes in the muſcular parts.

On the 16th of *June* ſhe was ſufficiently recovered to go out of the Hoſpital.

About this time, as near as I can recollect, I was called to a gentlewoman at *Clapham*, who was ſeized with this fever; and notwithſtanding ſhe had been very properly treated by her apothecary, and took every

thing

thing that could be deviſed for her ſafety, ſhe died about the tenth day after the attack.

CASE XII.

Mrs. *P*—, a lady in *Holborn*, aged twenty-eight, and of a delicate habit of body, was delivered by her midwife on *Saturday* morning the 7th of July, 1770.

The birth was not attended with any dangerous or uncommon circumſtance; ſhe was eaſy after delivery, and reſted well at night.

8th. Towards evening, complained of head-ach, but had ſeveral hours ſleep the following night.

9th. Waked in the morning with *acute pain* in her right ſide, her head-ach was worſe, and about three in the afternoon, ſhe had a violent *ſhivering fit*, with coldneſs of the extremities, and great internal heat acroſs her breaſt and ſtomach: I found her pulſe exceeding quick, her head-ach violent, her tongue white and dry, and the

pain

pain in her ſide extremely acute and deep ſeated; ſhe breathed laborioufly, and had no perſpiration, except on the breaſt and face.

I directed eight ounces of blood to be taken away, and one of the *antimonial powders* to be given, which was to be repeated every two or three hours, if the firſt had no effect. An emollient clyſter was adminiſtered, and bladders of warm water were applied to the ſoles of her feet and ſides; She paſſed a reſtleſs night, without any abatement of pain or difficulty of breathing.

Two of the powders were taken, the firſt created naufea, but did not prove emetic, nor produce any conſiderable perſpiration.

The blood was not ſo ſizy as I expected.

10th. The pulſe being full, hard, and frequent, her ſkin dry, and reſpiration difficult and painful; eight ounces more blood were drawn; the powders were repeated every

every four or five hours, and a *bliſter* was applied to the affected ſide in the evening: She drank plentifully of common emulſion with *nitre*, to prevent ſtrangury, and relieve her difficulty of making water, which had been troubleſome from the beginning

11th. Had no ſleep the preceding night; and as the pain in her head and difficulty of breathing ſtill increaſed, ſhe was again blooded in the night, to the quantity of ſix ounces, as I had previouſly directed, in caſe the ſymptoms became urgent.

She was much relieved ſoon after this laſt bleeding; the pain abated; ſhe could then breathe with more freedom, her pulſe became more ſoft and leſs frequent, and a free and equal perſpiration broke out all over her body.

At this time ſhe began to be troubled with a cough, and was much oppreſſed with white, viſcid phlegm, which was expectorated with great difficulty; ſhe had

two

two motions with a large diſcharge of fœces, which came away with the ſecond clyſter.

The laſt drawn blood was uncommonly ſizy, and the *gelatinous cruſt* on its ſurface extremely thick and tenacious.

She had milk in her breaſts, which were drawn twice a-day, and the *lochial diſcharge* was natural.

As ſhe perſpired freely, the powders were diſcontinued, and the *ſaline draughts*, with *oxymel ſcillit.* given every five or ſix hours.

The bliſter roſe well; the emulſion was continued, and the emollient clyſter ordered to be repeated as before.

About nine at night all her feveriſh ſymptoms returned; her pulſe was exceeding quick, ſkin dry, her thirſt intolerable, and the pain in her ſide, and difficulty of breathing were ſo violent, that her *apothecary* was called up in the night, and took away ſix ounces more blood: One of the

antimonial powders was alſo given, after which ſhe again began to perſpire, with an abatement of all the feveriſh ſymptoms, and had two or three hours refreſhing ſleep.

12th. Something better; but in the evening was attacked with a deep-ſeated violent pain in her other ſide, between the breaſt and axilla, ſo as almoſt to prevent her from breathing; her cough was troubleſome, and ſhe expectorated with much difficulty; four ounces more blood were drawn, and the following draught preſcribed:

℞

Sal. Volat. ammon. gr. xv
Succ. Limon. ʒ *iii*
Aq. alex. ſimp. ʒ *i*
---*Spt. cum Acet.* ʒ *ii*
Tinct. Thebaic. gtt. *xii*
Syr. e. Mecon. ʒ *i*

Miſce & fiat hauſtus veſperi exhibendus.

She drank plentifully of thin diluting liqors with *nitre*; the clyſter was repeated

as

as before, and by intervals, ſhe took the following mixture:

℞

Sperm. Ceti ſolut. ʒ ii

Lact. ammon. ʒ vii

Elix. Paregoric. ʒ iii *fiat miſtura.*

Had an exceeding bad night, but ſlumbered a little at times.

13th. Apparently better, but complained of ſevere rheumatic pains about her back and loins: Her cough was more and more troubleſome, and greatly interrupted her reſt, but was relieved by the mixture with *gum ammoniacum*, to which a ſmall quantity of *oxymel Scillit.* was added.

White wine whey was ordered to be given her in the night to ſupport her ſtrength, and ſhe took a decoct. of bread with currant jelly for nouriſhment.

14th. Had two or three hours refreſhing ſleep the preceding night, and the feveriſh ſymptoms were ſomewhat abated; but an there was not yet the leaſt ſediment or ſe-

paration in her urine, which was high-colored, I ſtill referred the uſe of *bark*, and directed the anodyne draught at night as before, which always eaſed her cough, and procured ſleep.

15th. Being *Sunday*, about two in the morning, her relations thought her in great danger, and particularly requeſted me to ſee her, which I did accordingly: Her pulſe was quick and tremulous, her extremities cold, and her face and breaſts were bedewed with a clammy ſweat. She breathed laborioufly, with convulſive jerks, and complained of great weight and oppreſſion acroſs her breaſt: though perfectly ſenſible, ſhe had a wild, eager countenance, a trembling hand, and apparently all the ſymptoms of approaching death.

I gave her four ſpoonfuls of a ſtrong cordial julep, ordered ſinapiſms to her feet; her extremities were rubbed with hot flannels; and cloths dipped in brandy were applied to her ſtomach. A

A few hours after I was gone, ſhe revived, but grew reſtleſs and almoſt frantic, inſiſting upon cold water to drink, which was given her: The next day I was acquainted ſhe was ſtill alive; when I viſited her about one in the afternoon, ſhe was perfectly ſenſible, but ſo weak and languid that ſhe was ſcarcely able to ſpeak.

I directed a cordial julep to be given when faint, and the following draught with *bark*, to be taken every two hours, or as often as her ſtomach would bear; but as ſhe had ſeveral involuntary motions, I ordered five grains of the *pil. e ſtyrace* to be inſtantly given, which reſtrained the looſeneſs, and procured ſome hours ſleep, before the bark could be prepared.

℞

Decoct. Peruv. Cort. ℥ *iſs*
Pulv. ſubtiliſs. ejuſd. ℥*ſs*
Aq. Cinn. Spt. ℥ *iii*
Syr. e Mecon. ℥ *i*

fiat hauſtus alternis horis exhibendus.

By eleven o'clock at night, ſhe had taken four draughts, and had very little return of fever; but as her ſkin was dry and thirſt intenſe, I allowed her to drink plentifully of toaſt and water, which ſhe particularly deſired, and ſwallowed with great eagerneſs; after which, ſhe gently perſpired towards the morning, and growing cooler began the draughts as before. The urine was amber colored, but without ſediment or ſeparation.

16th. Better in all reſpects, but very weak, and her reſt much diſturbed in the night by the cough: Draughts continued as before, and by intervals wine and light nouriſhment were given often, and in ſmall quantities.

17th. Continued free from fever, and able to ſit up; ſhe had three ſtools, was much diſturbed by her cough, and complained of a ſore throat.

Directed

Directed *pil. e ſtyrace* three grains, and the draughts only to be given three times a-day.

There was no remarkable change 'till the 21ſt. at which time ſhe was almoſt unable to ſwallow, her throat being much worſe, and the tonſil glands ſlightly ulcerated; her cough was troubleſome, and ſeveral *miliary eruptions* appeared in her body.

The following draught was given every four or five hours, and her throat was fumigated with the ſteams of hot vinegar poured on lavender flowers, which gave her great relief.

℞

Decoct. Cort. Peruv. ℥ *iſs*
Extract. ejuſd. moll. ℈ *i*
Elix. Vitriol. dulc. gtt. xx.
Aq. Cin. Spt. ℥ *iii*
Confect. Alkerm. ℥ *i. miſce & fiat hauſtus.*

Her ſtrength was ſupported by nouriſhment of eaſy digeſtion as often as her ſto-

mach would diſpenſe with it, and a little ſpiced claret was given whenever ſhe pleaſed.

23d. I deſired ſhe might be removed into the country (*Clapham*) for the benefit of air; and in a few days ſhe was ſo much better in all reſpects, as to leave off her medicines, and only took a tincture of *bark*, and *cardamons* as a ſtomachic, in a ſtrong infuſion of *tanſy*.

REMARKS.

This fever was complicated with the *pleuriſy* in a high degree; a caſe, of all others the moſt dangerous; and as pleuritic ſymptoms do ſometimes accompany a morbid affection of the *abdominal viſcera* in this diſeaſe; perhaps it might reaſonably be aſked, whether the *diarrhœa* and *inflammation of the omentum*, which ſo uſually ſucceeded the *rigor*, were not here prevented by *early* and *repeated bleeding*?

From

From what may be obſerved in the foregoing hiſtory; *it does not appear eligible to wait for a diſtinct intermiſſion of this fever, leſt a ſevere attack of the febrile paroxyſm ſhould in the mean time carry off the patient*: I think a remiſſion of the ſymptoms, eſpecially if attended with any critical evacuation, is, in general, ſufficient to juſtify the liberal and immediate uſe of the *bark*; but where they are at firſt manifeſtly inflammatory, when bleeding and evacuations had not preceded; I have ſeen it given without any good effect.

CASE XIII.

Sarah Evans, about twenty-one years of age, was delivered in the Hoſpital on *Monday* the 19th of *November*, 1770; ſhe had a natural labor, and was well the two firſt days after delivery; but on the third day ſeized with fever, which the *matron* believed was owing to a ſurprize, as the febrile ſymptoms appeared very ſoon after.

As

As this patient was of a very delicate irritable habit, and lax fibres, I did not think it proper to direct bleeding, particularly as her skin was moist, and her pulse quick and weak.

She took a mixture with *spt. mindereri* and the *tinct. thebaic*; emollient clysters were also directed to be frequently administered. After the fever had gradually increased for a few days, she complained of difficulty of breathing, and pain in the side of her belly, towards the navel. Warm flannels were applied to the part affected, and bladders of hot water to her feet.

She drank beef water, and weak pimento tea for common drink; and being extremely languid, was allowed a small quantity of white wine and light nourishment by turns.

On the 29th of *November* she was still weaker; the heart almost ceasing to do its office, and the circulation being at the lowest ebb. The next morning she calmly expired

expired without any ſigns of mortal anguiſh.

DISSECTION.

On opening the body, evident marks of inflammation appeared, particularly in the *abdomen* : Great part of the *omentum* was deſtroyed, and converted into *matter*, what remained was become *gangrenous* ; its diſeaſed membranous expanſions here and there overſpread the *inteſtines*, and ſlightly adhered to their ſurface, which was alſo inflamed, particularly at their convolutions ; thoſe parts, from the additional effect of preſſure, being as it were ſuperficially ſoldered together : That portion of the *omentum* which is inſerted round the great curvature of the ſtomach, was alſo conſiderably inflamed.

The *uterus* had a natural appearance, and was perfectly ſound, as well as all the parts peculiar to it.

The

The *liver* was alſo unaffected, except its peritonæal coat, which being diſſolved by the inflammation, lay on its ſurface in a tender, gelatinous ſtate. The *gall-bladder* was turgid with *bile*.

The *mediaſtinum* was inflamed, but the *lungs* were perfectly ſound, and free from adheſion to the pleura.

The *whey-colored, putrid fluid* contained in the cavity of the abdomen, was nearly the ſame in quantity and appearance as that in the former caſes.

Where the pulſe was extremely ſoft and weak, and the circulation languid; it is difficult to account for ſo ſudden and high a degree of inflammation, as to produce a collection of *matter*, or any inflammatory affection of the abdominal viſcera; but ſo it was; and therefore, in all ſuch caſes, where bleeding ſeems improper, it will be requiſite, immediately to apply *finapiſms*, or a *large bliſter* to the *umbilical region*.

CASE.

CASE XIV.

Hannah Jeffreys, of a ſtrong, healthy conſtitution ; the fourth day after delivery, which was natural, was ſeized with a *ſhivering fit*, ſucceeded by head-ach, and great ſickneſs at ſtomach, with ſix bilious ſtools; ſhe was affected with univerſal languor, and dejection of ſpirits, was very reſtleſs, and had a ſmart, quick pulſe.

A clyſter with beef-water was given, and ſhe diluted plentifully with warm balm-tea, but did not perſpire.

The next morning, ſhe had two purgative evacuations, and labored under much anxiety and oppreſſion at her breaſt: Broad, *purple colored ſpots* which roſe a little above the ſurface of her ſkin, ſoon after appeared all over her body, they were very thick on her breaſt and face, but not attended with any mitigation of the ſymptoms, except for an hour or two in the beginning.

She took one of the *antimonial powders*, which was repeated every three or four hours

hours, without any ſenſible evacuation whatever: As ſhe was no better in the evening, the eruption appearing *livid*, and her extremities being cold; a cordial julep was given her now and then; *bliſters* were applied to the inſide of her arms, and *cataplaſms* to her feet; the emollient clyſter was repeated, and ſhe was allowed white-wine whey for common drink.

The two following days all the febrile ſymptoms increaſed, with the difficulty of breathing; altho' the bliſters, which had been applied, produced their proper effect; and thus growing gradually worſe and worſe, ſhe died at four in the morning, on the 5th of *May*, 1771, being the ninth day from that of her delivery.

REMARKS.

The cauſes from whence thoſe *petechiæ* are ſaid to happen, are ſo different, as to make a difference in their treatment, very eſſential to the patient's ſafety; for inſtance,

inſtance, if they ariſe from putrid diſſolution of the blood, they will require the uſe of *bark*, with *acids* ; and all ſuch medicines as confirm its texture, and reſiſt the putrefactive tendency prevailing in the habit ; but if, on the contrary, they are produced by too violent a degree of the circulating power, which may occaſion rupture of the ſmall arteries, and extravaſation of the ſanguineous globules, then the former remedies are to be avoided ; and ſuch as diminiſh the action of the heart and arteries, will afford the moſt relief ; viz. *bleeding*, *ſedatives*, and cooling regimen.

The firſt caſe is attended with exceeding danger, and very often proves fatal: Here the pulſe is generally quick and weak, and the loſs of ſtrength great and ſudden; on the contrary, in the ſecond caſe, the pulſe is hard and full, the artery vibrates more ſtrongly, and the *ſpots* may ſometimes be found, by the touch, to riſe a little above the

the ſurface of the ſkin, which is uſually hot and florid; but it muſt be confeſſed, that ſome particular fevers are ſo indiſtinctly marked, as to their ſpecies, and their ſymptoms ſo complicated and equivocal, that it is not a little difficult to know with certainty from what cauſes they ariſe.

This laſt caſe was the only one where the *omentum* was neither ſuppurated, or become gangrenous; there was indeed, ſome ſigns of ſlight inflammation, and a conſiderable quantity of fluid in the *abdomen*, which looked like the *ſerum* of blood; but it was not purulent, as in the former caſes. Hence it is probable, that a gradual accumulation of fluid in the *abdomen* commences before death, as the *lymphatics* loſe their abſorbent power, from defect of the *vis vitæ*.

We have been told, the body has ſometimes been obſerved to remain warm for ſeveral days after death, and that the limbs, inſtead of becoming ſtiff and rigid, continue

tinue ſoft and flexible: This extraordinary circumſtance occurred to me once or twice, and occaſioned no ſmall anxiety in the friends of the deceaſed, who looked upon it as a ſign of ſome latent ſparks of life, and therefore would not permit interment of the body, until long after the uſual time. But in reality, ſuch appearances are ſtrictly *morbid*, and inſtead of creating hope, ſhould totally exclude it; for they denote diſeaſes highly putrid, and of a mortal nature. All animal bodies tend to diſſolution, as ſoon as the progreſſive motion of their fluids ceaſes; and this preternatural heat of body ſeems owing to nothing but an uncommon degree of *putrefactive fermentation* which is known to generate *heat*.

The following caſe was drawn up by Mr. *Patten*, ſurgeon to the ſhip Reſolution which ſailed round the world, commanded by the late *Captain Cook*.

CASE XV.

Sibyl Watſon, aged twenty-two, was delivered in the Hoſpital Oct. 2d, 1776, of her firſt child, without any uncommon circumſtance attending the labor which was eaſy and natural: The placenta came away without any aſſiſtance, about ten minutes after delivery. She reſted well in the night, and perſpired gently.

This woman was of a lax and delicate conſtitution, and had during the two laſt months of pregnancy, been troubled with a ſlight pain in her left ſide attended with cough and difficulty of breathing, but theſe complaints had in a great meaſure been removed by bleeding ſome time before delivery.

3d. In the morning ſhe was perfectly free from pain and fever, but about ſix in the evening without any apparent cauſe, was ſuddenly attacked with burning heat diffuſed all over her body, which was ſucceeded by coldneſs and ſhivering, great anxiety

anxiety and oppreſſion at the *præcordia*, and univerſal pain. For theſe complaints ſhe took a few drops of the tinctura thebaica in a little mint water.

At nine, when I ſaw her, ſhe had the following ſymptoms, *viz.* violent pain in the left ſide of the thorax, which ſtruck down to the left groin, ſometimes to the right, and frequently darted from thence to the navel. She had great ſoreneſs all over the abdomen, a frequent nauſea and retching to vomit, which brought up nothing but phlegm; her breathing was ſhort, and laborious, the pulſe quick, weak, and unequal, ſometimes fluttering, and at other times regular, with ſome ſmall degree of hardneſs; her voice was weak and tremulous, her countenance pale, the ſkin hard and rough, without the leaſt moiſture on any part of her body, except the breaſt and neck; ſhe complained at intervals of acute pain in the ſtomach,

which continued for a ſhort time, but frequently returned; ſhe had alſo a fixed pain in the right ſhoulder.

Dr. *Leake* directed ten ounces of blood to be taken from the arm, which gave her immediate relief; the pulſe became more regular, and the oppreſſion about the præcordia, and difficulty of breathing, were almoſt totally removed. The fourth part of a grain of emetic tartar was given with the ſaline draught every three or four hours, and ſhe drank plentifully of warm diluting liquors.

4th. No reſt the preceding night; in the morning ſhe had a bilious ſtool, her pulſe was full and quick, attended with difficult reſpiration, and great oppreſſion at the præcordia, with frequent ſighings; her tongue was white, but moiſt, and ſhe complained of univerſal pain and ſoreneſs all over the abdomen: The tartar emetic was continued, with large doſes of camphorated julep every three hours; ſhe diluted plentifully, but did not perſpire.

5th

5th. Had eight bilious ſtools, the pain and difficulty of breathing were conſiderably abated, her complexion more lively, the pulſe regular, differing little from a healthy ſtate, a gentle moiſture was diffuſed over the whole body; ſhe had a moderate ſecretion of milk, and the lochia were diſcharged in their natural quantity. Two ounces of a ſtrong decoction of bark were now preſcribed and directed to be given every four hours; ſhe reſted well in the night, and perſpired gently.

6th. Had five bilious ſtools without pain, and was much better in all reſpects. The decoction of bark was continued.

7th. Almoſt every complaint vaniſhed; ſhe was ſo much better, as to be able to walk about the ward without aſſiſtance, and in due time was diſcharged from the Hoſpital perfectly recovered.

CASE XVI.

Sarah Davies was delivered at the Weſtminſter Lying-In Hoſpital, December 4th, 1778. The lochial diſcharge and excretions in general were natural.

8th. The pulſe full and frequent; reſpiration difficult. She was thirſty, had pain in her head, and as ſhe expreſſed it, at her heart alſo. By the matron's order, balm tea and barley water were given for common drink.

9th. She was viſited by *Dr. Leake*, who preſcribed the antimonial powders and bottles of warm water to her feet.

11th. Better in every reſpect, with abatement of thirſt, perſpiration moderate, the bowels laxative, and pulſe not ſo quick.

12th. Worſe, as ſuppoſed, from anxiety of mind; pulſe low and frequent, the jaws ſtrongly contracted, and breathing difficult, with pain in her bowels and looſe offenſive ſtools. *Dr. Leake* directed a bliſter to the

ſide,

ſide, and bolus's of *camphor*, *muſk and opium*, which were given when they could be got into her mouth.

13th. Pulſe low and quick, and ſtools frequent, ſame medicines continued.

14th. Purging more violent, attended with ſlow fever, thirſt violent and ſkin dry. Viſited by *Dr. Leake*, who directed a cold infuſion of bark and antimonial powders.

15th and 16th. Delirious in the night, ſtools fœtid, pulſe quick and languid. Antimonials omitted, and the camphorated julep ordered to be given often, with a ſtrong infuſion of cortex.

17th. Much the ſame. Medicines continued.

18th. Worſe in the night, the abdomen much ſwelled, ſtools black, fœtid and involuntary. The medicines were continued as long as ſhe could take them, and an opiate at night was given.

19th. In the morning the patient died.

Dr. Leake directed the body to be opened, the next day at night, in the preſence of *ſixteen gentlemen* of the faculty. The abdominal integuments being removed, the omentum was found inflamed on one ſide. The inteſtines were much diſtended with wind, eſpecially the colon. On the ſtomach was found a ſmall, gangrenous ſpot. The other viſcera, as well as thoſe of the thorax, had no diſeaſed appearance.

The contents of the pelvis were ſound, and the uterus contracted to the ſize of a ſmall melon. After this examination the *Section of the Symphyſis Pubis* was performed, in order to aſcertain *how much ſpace might be gained between the divided bones.*

The cartilage being laid bare, by Mr. *Poignand*, ſurgeon, an obſcure motion was perceived between the bones upon moving the thigh up and down, and the cartilage being very ſoft, was then cut through by *Dr. Leake*, with great eaſe and without wounding the neck of the bladder,

bladder, or any of the contiguous parts. The oſſa-pubis immediately receded from each other about one inch, and with very gentle force were ſeperated *two inches and an eighth.* The contents of the pelvis were afterwards removed, and on examining the *internal poſterior ligaments* of the bones of the pelvis, they were neither lacerated or in the leaſt injured.

This operation gave general ſatisfaction to the gentlemen preſent, of whom, as a pupil, and *Hoſpital Aſſiſtant to Dr. Leake*, I had the honor to be one.

From the circumſtances attending this caſe, where no part eſſential to life was cut or injured, Dr. *Leake* as well as the reſt of the gentlemen, were inclined to think the ſection of the pubes, in ſafety and advantage, preferable to the Cæſarian operation.

J. Lawton.

Weſtminſter New-Lying-Inn Hoſpital,
December 15th, 1778.

Several

Several other medical gentlemen and pupils intended to have been preſent at this operation, but were prevented by receiving intelligence too late.

With reſpect to the number of patients delivered, and likewiſe thoſe who died in the *Weſtminſter New lying-in-hoſpital*; the account, as appears by the Hoſpital books, ſtands thus: From the 20th of *April*, 1767, to the 30th of *November*, 1769; out of *two hundred and eighty-five* delivered, three had the *Child-bed Fever*, of whom, *Eliz. Waters*, and *Eliz. Becket* recovered, and *Suſannah Vernon*, who had twins, died; alſo *Ann Moody*, of the *ſmall pox* the day after delivery.

From the foregoing date, to the 15th of *May*, 1770, (being the *epidemic ſeaſon*) out of ſixty-three delivered, *nineteen* had the *Child-bed Fever*, beſides others more ſlightly affected with it; of which number, eleven died in the hoſpital, and two more out of the houſe, who were removed at the requeſt of their

their friends; namely, *Frances Williams* and *Mary Gammon*. *Elizabeth Kibblewhite*, alſo died of inflammation in her bowels, during the above period.

From the 15th of *May*, 1770, to the 29th of *September*, 1772, out of *three hundred and five* delivered, two died, viz. *Sarah Evans*, and *Hannah Jeffreys*.

This fever was alſo *epidemical* in *London* in the year 1760, of which, twenty four died in the *Britiſh Lying-Inn-Hoſpital*, from the 12th of *June*, to the latter end of *December*; there being no inſtance of any ſuch mortality in ſo ſhort a time, till the year 1770, when it was again extremely fatal.

THE SECTION OF THE PUBES firſt propoſed by *M. Sigault* in his *Theſis* at *Angiers*, and afterwards by him ſucceſsfully performed on the living body at Paris, Sept. 2d. 1777, having lately much engaged the attention of Medical Gentlemen, I ſhall beg leave to offer ſome general Animadverſions on that new and extraordinary operation; particularly

particularly as *M. Le Roy*, Profeſſor of Midwifery, and doctor regent of the faculty of phyſic at Paris, who aſſiſted him in the performance of it, was pleaſed to honor me with his *Treatiſe on that ſubject*; and as *Mr. Poignand* the Tranſlator has thought fit to addreſs it to me.

Mr. Sigault ſuppoſes that the cartilages interpoſed between the bones of the pelvis become relaxed by the effect of pregnancy, and therefore that they recede from each other in the time of labor, by the preſſure of the *child's head.* He deſcribes the SECTION OF THE PUBES and propoſes it as a ſubſtitute for the *Cæſarian operation*; the propriety of which, as well as the objections brought againſt it, I am deſirous to examine with attention and candor; for little advantage can ariſe from opinions, where men rather contend for ſuperiority than truth. The ſpirit of enquiry is only commendable when it is exerted for the improvement of ſcience, and ſolely directed

for

for the *public good.* But although, I am inclined to think favorably of this operation, for reaſons hereafter aſſigned, I know that nothing but time and future experience can ſufficiently determine whether it ought to be rejected or adopted.

The ſtructure of the parts on which this operation is performed, being perfectly known to every medical reader, their deſcription, as well as that of the operation itſelf, would be unneceſſary, eſpecially as the laſt is circumſtantially ſet down in Mr. LeRoy's tract, entitled *Practical Enquiries on the Section of the Pubes*, to which I muſt refer him.

The following are the objections to this *New Operation*; Firſt, that the cartilage at the ſymphyſis of the pubes, may happen to be *oſſified*, which would prevent its diviſion by the knife: Secondly, that the neck of the bladder may be wounded: Thirdly; that the ſpace gained by the ſection of the Pubes, may not, in a narrow pelvis, be ſufficient

cient to allow the child's head to descend through the cavity: Fourthly; that the union of the cartilage may not be affected: And lastly, that the *internal, posterior ligaments uniting the sacrum and ilia*, may be torn asunder, by dividing the bones of the pubes.

In answer to the preceding objections: First, it may be remarked that cartilage being a substance essentially distinct from bone, is never found ossified except in a *præternatural state*, or in *old age*, after the time of child-bearing is past, and where there could be no occasion for the operation. I cannot however, assent to the opinion of *Sigault*, that the cartilages of the pelvis, undergo a temporary change, and become softer in the time of pregnancy. The obscure motion perceived at the symphysis of the pubes, in the patient at the *Westminster Lying-in Hospital*, already mentioned, I believe was not owing to any additional softness, but entirely to its own permanent structure as a cartilage

cartilage which allowed of obſcure motion, when conſiderable force was applied.

Secondly, the neck of the bladder being only ſlightly attached to the ſymphyſis of the pubes, by cellular membrane, and not in cloſe union with the cartilage; there *never can be the leaſt danger of wounding it*, except the operator is unſkilful and ignorant of the ſtructure and ſituation of the parts.

Thirdly, the ſpace only of *one inch* gained by *M. Sigault* from the ſection of the pubes, on the dead body, does not appear ſufficient to enlarge the bony paſſage for the exit of a child's head, in a pelvis uncommonly narrow; but in the caſe of Mrs. Braſier, *M. Le Roy* found a ſeparation of *two inches and a half*; and as the caſe at the *Weſtminſter Lying-in Hoſpital* affords inconteſtible proof, that after the ſection of the cartilage, the bones of the pubes, without violence receded from each other, full *two inches and an eighth*, I have no doubt but

ſo

ſo much additional ſpace, would in general be ſufficient to let the child's head paſs, even in a pelvis ſo preternaturally narrow, that no other means but the *Cæſarian operation* could be deviſed for its birth.

Of all the cauſes of difficult labor, the moſt frequent and invincible obſtacle to child-birth is that of a *narrow or diſtorted pelvis*; to remedy which, the *Section of the Pubes* ſeems more peculiarly adapted; but here we are told by ſome that although the *long axis* of the pelvis may from thence be extended from ſide to ſide, its *ſhorteſt diameter* from *ſacrum to Pubes*, where additional ſpace is moſt wanted, will not be increaſed in the ſame proportion, and therefore the operation cannot avail. This indeed, at firſt ſight, looks like a ſpecious and inſurmountable objection, which if not duly attended to, and thoroughly examined, might greatly depreciate the merit and advantages of the new operation. I ſhall, therefore, beg the Reader's attention to the following circumſtances,

which

which if clearly underſtood, I preſume will diſprove and totally ſet aſide what has ſo plauſibly been alledged againſt it. By the *Section of the Pubes*, it is now generally allowed, even by its opponents, that the ſpace gained by the aperture between the divided bones, is nearly *two inches and a half*, even in the dead body, where the parts are cold, and rigid, and conſequently leſs yielding than in a living ſtate. It will therefore follow, that as much of the occiput or hind head as is protruded into an aperture at the pubes of *two inches and a half*; *ſo much preciſely will be the ſpace gained by this operation, and ſuperadded to the ſhort axis of the pelvis, from ſacrum to pubes*; and ſince the occiput preſenting at the ſymphyſis is much ſmaller in diameter than the head itſelf; ſo much greater will be its projection into the aperture; and therefore the ſpace gained from ſacrum to pubes will be equal to the enlargement of the pelvis from ſide to ſide; which is the circumſtance here contended

for, and what we presume is fully proved, contrary to the assertion of those, who have opposed the new operation.

Fourthly, from the observations, and unquestionable authority of *Petit* and *De La Faye*, we are assured, that *cartilages will as firmly unite after division*, as bones after a fracture. But, to put this matter out of all doubt, *Camper*, a Dutch physician, made experiment upon a quadruped, by cutting through the cartilage of the *pubes*, and after dissecting the parts, he found they were *firmly united*.

Lastly, respecting the pretended laceration of the internal, posterior ligaments of the pelvis uniting the sacrum to the ilia, I must refer to the case at the *Westminster-Hospital*, already recited, where the section of the pubes was made in the presence of *sixteen Medical Gentlemen*, and where, notwithstanding the space gained was *two inches and an eighth*; no laceration or the least marks of violence appeared, but on the contrary,

contrary, thoſe ligaments were found perfectly firm, and in their natural ſtate. If ſo much ſpace could be obtained without laceration in the *dead body*, where the fibres were cold and rigid, and their coheſion conſiderably weakened by natural tendency to diſſolution; how much greater ſpace might reaſonably have been expected in the living ſubject, where the ſolids are more ſoft and yielding?

That theſe ligaments may be torn aſunder by forcibly pulling open the bones of the pubes, cannot be denied; but the ſame thing will happen to a ſhip's cable, whenever a force more than equal to its reſiſtance is applied. In ſhort, with any reaſonable degree of prudent caution, the laceration of theſe ligaments need never be apprehended.

Let us now take a comparative view of the *Cæſarian operation*, for the ſucceſs of which, *Rouſſetus* contends with ſo much zeal; whilſt *Marchant* condemns the operation as highly

gerous, and informs us that *Pare*, *Guillemeau*, *Viard*, and others of the firſt rank in their profeſſion, found this operation extremely unſucceſsful.

In the fourth volume of the London Medical Obſervations, may be found a caſe of *Cæſarian operation* accurately related, and the only inſtance that I know of, where it was performed upon the *living body*, in this great city, for upwards of a century paſt. From this caſe, as one which may be depended upon, I have tranſcribed the following particulars, being the leading circumſtances, and moſt material, practical facts relative to the nature and event of that operation.

The *Cæſarian operation* was performed on *Martha Rhodes*, Oct. 21ſt. 1769, by Mr. Thomſon, ſurgeon to the London Hoſpital, who informs us, that the patient did not loſe more than four ounces of blood, though ſhe died about five hours after. The body being opened, grumous blood which was computed to weigh about twenty

ty ounces, was found on the ſurface of the *omentum* and *uterus*. The cavity of the womb alſo contained blood, ſo that the whole quantity of this vital fluid loſt by the operation was allowed to be *thirty ounces*. Mr. Thomſon ſays, it is well known, that in natural labors, the diſcharge of blood will often much exceed that quantity; and therefore ſeems at a loſs to form a judgment what might have been the immediate cauſe of this patient's ſudden death.

From this laſt opinion I muſt beg leave very much to differ; but even admitting the quantity of blood diſcharged in a natural labor to be conſiderable, as it ſometimes is; the danger ſhould not be eſtimated ſimply by its quantity, but by the *ſhort ſpace of time in which it is diſcharged, as well as the nature of the blood itſelf, and the ſource from which it is derived.*

After delivery, the blood is very ſlowly evacuated from the innumerable ſmall veſſels proceeding from the womb, and enter-

ing the cellular ſubſtance of the placenta, for the immediate *ſervice of the child*; reſpecting the mother, this blood may therefore be looked upon as *redundant, and not eſſential to the ſupport of her own body.* On the contrary, in the *Cæſarian ſection*, where the large dilated arteries and veins of the womb are divided, and *thirty ounces* of vital blood, or that merely, *maternal*, ſuddenly guſhes forth in a full ſtream, I am inclined to think that ſo powerful a check to the circulation, may ſuſpend the heart's motion, and prove the immediate cauſe of the patient's death, by producing a mortal ſyncope; particularly, when we conſider, that the *hypogaſtric arteries* entering the uterus, proceed from large branches of the *aorta*, through which the blood circulates with extreme velocity.

But could we ſuppoſe the patient might eſcape a *mortal hæmorrhage*, after this operation; would not the large quantity of grumous blood extravaſated in the cavity of

the

the belly, from which it could not be evacuated, corrupt and deſtroy the contiguous vital parts, and prove the *remote cauſe of her death*?

The *Section of the Pubes*, which allows the child to be born by the natural paſſage, carries not with it thoſe ideas of cruelty which attend the *Cæſarian Operation*, where the patient is, as it were, emboweled alive. No formidable apparatus is neceſſary; the ſection being made with expedition, and without pain or danger; no blood-veſſel, nerve, or other parts eſſential to life are wounded; theſe divided, being only *cutis*, *cellular membrane and inſenſible cartilage*, from which neither *Hæmorrhage*, or *ſymptomatic Fever*, are to be apprehended.

Theſe are my reaſons for preferring the *New Operation*, by which the mother and child may probably *both be ſaved*; but where the mother at leaſt, to whoſe ſafety our principal attention ſhould be directed, would generally be loſt by the Cæſarian Section.

To thoſe who vaguely give it as their opinion that this operation will not ſucceed, the anſwer is ſhort; *it has already ſucceeded, and therefore it will again ſucceed*; particularly with ſuch as are diſpoſed to give it *fair and judicious trial*; but it will be prudent for every *Accoucheur*, not raſhly to undertake this, or any other capital operation, on the living body, without the concurrence, and aſſiſtance of others of the profeſſion eminent for their candor and ſkill.

M. Le Roy gives ſeveral examples of its ſucceſs. *M. Deſpree*, ſurgeon, in *Britanny*, performed the ſection of the pubes with happy event in 1778; and *Monſ. De Lambon*, firſt ſurgeon to the Ducheſs of Lorraine, in a letter to *Monſ. De Brambilla*, lately publiſhed at *Mons*, informs him that he had performed the ſection of the pubes on two patients, *with ſucceſs*; one of which ſubmitted to the operation *twice*, and is now in perfect health, as well as her child, of which ſhe was happily delivered by the *ſecond operation*.

My

My ingenious friend, Dr. *Hauſman*, of *Brunſwick*, who did me the honor to number himſelf among my pupils, obliged me with a manuſcript account of this operation ſucceſsfully performed by Profeſſor *Siebold*: His recital of this caſe, reſpecting its favourable event, is very different from what it appears in a periodical publication, but whether this may be owing to miſtake or other cauſes, I cannot take upon me to ſay, as I have not yet had an opportunity of ſeeing the original caſe related by *M. Siebold.*

To conclude reſpecting the caſe of Mrs. *Souchot*, upon whom the ſection of the pubes was firſt performed by *M. Sigault*, ſuch was the event, that both the mother and child were preſerved; the circumſtances appeared ſo extraordinary, that Commiſſioners were appointed by the *Medical Faculty of Paris*, to examine into the ſtate of the caſe and ſucceſs attending it, in conſequence of which, the honor of prize medals was conferred on *M. Sigault*, as well as *M. Le Roy*, who aſſiſted him in the operation. SEC-

SECTION V.

Of the Nature and Treatment of Uterine Hæmorrhages, before and after Delivery; and the new Methods of Practice recommended by the Author.

UTERINE Hæmorrhages and Convulsions being two of the moſt dangerous and alarming maladies which can happen to pregnant women; I am inclined to hope, the obſervations contained in the two following ſections will become uſeful; eſpecially as they are drawn from repeated experience, in the courſe of ſeveral years practice. Few authors have treated profeſſedly or practically on thoſe ſubjects; for, it has been too much the cuſtom of one, to copy and adopt the methods of another, and to recommend them from hear-ſay, or on the authority of his predeceſſors, rather than from the teſt of his own experience; to the great detriment of true medical knowledge.

A uterine

A uterine hæmorrhage or flooding, is a preternatural diſcharge of blood from the womb, ariſing from a ſeparation of the *placenta* from its interior ſurface, which in general, may be looked upon as its immediate cauſe; but the remote cauſes are various; they may proceed from external violence, as blows, falls, or the over exertion of the body in lifting heavy weights. Inflammatory fevers, the violent paſſions of the mind, or whatever will preternaturally increaſe the momentum of the blood on the uterine veſſels, may alſo be productive of this diſcharge.

Nothing will ſo much contribute to the true knowledge of uterine hæmorrhages, as due attention to the peculiar ſtructure of the *placenta* and *gravid uterus*, and their attachment to each other; this will not only more clearly point out the ſource from whence blood proceeds, but alſo the degree of danger to the mother and child.

The

The *placenta* may be looked upon as an apparatus or medium of intercourſe, formed by nature for carrying on circulation between the mother and child: It is not only made up by one umbilical vein, and two arteries, which divide and ſubdivide till they become infinitely ſmall, but alſo by a conſiderable quantity of *cellular ſubſtance* every where interpoſed among the ramifications of thoſe veſſels. This cellular part is abundantly ſupplied with veſſels from the uterus, but they are to be conſidered as a ſyſtem diſtinct from that of the umbilical veſſels, with which they have no communication; at leaſt, that can be demonſtrated; for, the ſubtileſt injections have never been found to paſs into one, by filling the other; the firſt can only be injected from the uterus, the laſt from the body of the fœtus.

Hence it appears, there is a two-fold circulation in the placentary maſs, and that although there is a continuation of veſſels and *circulation of red blood between the uterus and*

and placenta, there is none between the mother and child, by means of the umbilical veſſels.

Indeed it has been matter of diſpute, whether the ultimate branches of the placentary vein anaſtomoſe with thoſe of the uterus, ſo as to tranſmit red blood from the mother to the child; or whether they ſtrike root in the uterus, and from thence only abſorb a milky fluid for the nouriſhment of the fœtus, which is afterwards converted into blood by the circulating power of its heart and arteries; and in the ſame manner as blood is generated by the *chick in ovo*.

Arantius, a learned Profeſſor in the univerſity of *Bologna*, I think, was the firſt who denied a circulation of red blood between the mother and child, by continuation of veſſels paſſing from one to the other; and the rather, as he obſerves that there is no kind of proportion between the innumerable branches of the placentary veſſels, compared to thoſe of the uterus, to render their

their *anaſtomoſis* in the leaſt probable: "*Illud tandem hanc vaſorum unionem minime concedi poſſe atteſtatur, quod nulla ſit vaſorum uteri cum innumeris umbilicalium radicibus, & capillamentis proportio, eoquo magis quod uteri vaſa per matricis propriam ſubſtantiam potius ſanguinem effundant, quam ad internam ſuperficiem ſuis oſculis pertingant.**"

The late celebrated Dr. *Monro*, was of the ſame opinion. He imagined, the extreme branches of the umbilical vein took up a lymphatic part of the blood from the uterine ſinus's, in the ſame manner that *lacteals* abſorb chyle from the cavity of the inteſtines.†

Perhaps it may be urged, that although the umbilical vein only receives a nutritious fluid from the uterus, yet the arteries muſt return their red blood to it, otherwiſe it would become redundant; but ſeeing that

* *Arant.* de Human. Fœt. p. 24.

† *Edin.* Med. Eſſays, Vol. II. p. 133.

that there is a free anaſtomoſis between theſe veſſels, in the ſubſtance of the placenta; the greateſt part of that arterial blood ſuppoſed to be carried back to the uterus, is in fact, taken up by the umbilical veins, and returned to the child.* Indeed, the moſt accurate anatomiſts now ſeem to agree, that the ultimate branches both of the umbilical arteries and veins, reach the convex ſurface of the placenta, and proceed no further.

If we may compare vegetables with animals; it ſeems moſt likely, that the child in utero is at firſt nouriſhed by the ſame abſorbent power, as roots in the earth; or like *paraſite plants*, which draw their nouriſhment from that body into which they are inſerted.† Perhaps it may alſo be a probable conjecture, that the uterine veſſels which enter the cellular ſubſtance of the placenta,

* According to *Robault*, only a ſeventh part of the arterial blood is returned by the umbilical arteries to the convex ſurface of the placenta.

† Vide *Parſon's* Analogy between the propagation of *animals* and *vegetables*.

placenta, may there depoſit a nutritious lymph, which is afterwards abſorbed by the extreme branches of the umbilical vein, for the ſervice of the fœtus.

From this reaſoning, drawn from the ſtructure of the parts; a circumſtance, which has often appeared unaccountable, becauſe it was imperfectly underſtood, will become more obvious, viz. Why the child may ſurvive, in utero, for a conſiderable time, and without being deprived of blood, although the mother is almoſt exhauſted and brought to the point of death by an exceſſive loſs of that fluid; for the blood, in flooding caſes, is diſcharged immediately from thoſe very *veſſels which ſpring from the uterus*, and enter into the cellular ſubſtance of the placenta, and not from the extreme branches of the *funis umbilicalis* on its convex ſurface; the firſt being parts peculiar to the womb, the laſt proper to the child.

The

The *falſe chorion* inveſting the exterior ſurface of the *placenta*, is alſo numerouſly ſupplied with thoſe *uterine veſſels*; and it may be laid down as a practical Rule without exception, that whenever a large quantity of this tender *vaſcular membrane* comes away, attended with pain and a ſanguineous diſcharge; it infallibly denotes a ſeparation of the placenta from the uterus; the patient will therefore neceſſarily *miſcarry*, notwithſtanding every attempt to prevent it; this reddiſh flaky ſubſtance, being as it were, the very cement and *bond of union* between thoſe two parts.

The illuſtrious *Harvey* aſſerts, that when the mother was even extinct and almoſt ſtiff with cold, he had found the umbilicial arteries beating, and the fœtus vigorous and ſtrong: He alſo denies the anaſtomoſis of veſſels between the placenta and uterus.

" *Imo vero in ejuſmodi, Cœſonibus, mem-*
" *brana chorio etiamnum obvolutis, ſæpe re-*

"*peri* (*matre jam extincta & plane rigida*)
"*arterias umbilicales micantes, fœtumque ve-*
"*getum. Quare haud verum eſt ſpiritus a*
"*matre per arterias ad fœtum pertingere*:
"*Nec magis verum vaſa fœtus umbilicalia*
"*cum uteri vaſis per Anaſtomoſin con-*
"*jungi**."

A *new-born child* will live many hours after the birth without nouriſhment; for it then exiſts by a circulation of its own, and being replete with blood and juices, ſtands in no immediate need of additional ſupply; in like manner it will continue alive for a given time in utero, when cut off from all communication with the mother; that is, after a ſeparation of the placenta; but although it there receives no red blood, it muſt neceſſarily languiſh and die at laſt from the want of lymph, or that nutritious ſomething which is eſſential to life; like a tender plant, which

* *Harv.* Op. a Colleg. Medic. *Londin.* edit. p. 590.

which cannot long ſubſiſt without the uſe of water, or refreſhing ſhowers *.

Such fluxes of blood as happen after delivery, may be brought on by violent extraction of the *placenta*; diſtenſion of the uterus in twin-caſes, from a ſecond child; or by a defect of its contractive power, from a general weakneſs of the the ſolid ſyſtem.

Uterine hæmorrhages are more or leſs dangerous, in proportion as the patient is advanced in the time of pregnancy. In the firſt two or three months, the embryo enjoys little more than *vegetable life*; the veſſels connecting it to the *uterus* being very ſmall; conſequently, the blood is then diſcharged by ſuch ſlow and inſenſible degrees, that there is generally time to ſupply the loſs, by repleniſhing them with nouriſhing fluids, ſo as to keep up the circulation.

* Vide, Greg. Nymman. de Vitæ Fœtus in Utero.

When this is the caſe, the patient will ſuſtain the loſs of a large quantity of blood, without much diminution of ſtrength; but on the contrary, when the diſcharge is great and ſudden, the event is frequently fatal; and the rather if it happens in the laſt months of pregnancy, when the uterine veſſels are large and replete with blood.

The vaſt profuſion of this fluid gives ſo ſudden a check to the circulation, that there is not ſufficient quantity returned to the heart to keep it in due motion; ſo that its action either languiſhes for a time, and the patient faints; or wholly ceaſes, and ſhe expires in a *ſyncope*.*

Floodings from bruiſes or falls, are generally of the worſt conſequence; for the patient is then not only in danger ſimply from

* According to *Haller*'s doctrine, the motion of the heart principally depends on the irritability of the right auricle, which is ſtimulated into motion, by the influx of blood from the *vena cava*.

from the loſs of blood, but alſo from the nature of the injury itſelf. They are alſo extremely fallacious and fatal in the laſt months of pregnancy; for, they will frequently ceaſe for a time, and remove the appearance of danger; but as often ſuddenly return, and ſometimas carry her off before there is time to effect delivery, which is the only expedient, in ſuch caſes, that can poſſibly ſave her life.

When the uterus is emptied of its contents, it contracts, and gradually becomes leſs in bulk, eſpecially if the vital powers are not much impaired by the preceding diſcharge; conſequently, the current of blood in the branches of the *hypogaſtric* and *ſpermatic arteries* will meet with reſiſtance, and its momentum on the bleeding orifices of theſe veſſels being conſiderably diminiſhed, the flooding will then either abate or totally ceaſe; ſo that a dexterous operator will ſometimes be able to do more for the ſafety of his patient by ma-

nual operation, than could poſſibly be effected by the moſt ſkilful adminiſtration of medicines.

When any part of the placenta has been ſeparated from the uterus, it will not again adhere, as appears after delivery; for that preciſe quantity of it which was diſunited, is plainly pointed out, by being covered with black, coagulated blood. Hence the reaſon is obvious, why thoſe hæmorrhages which go off for a time, are ſo extremely dangerous by their ſudden return; for they do not ceaſe becauſe there is a re-union of divided veſſels, but becauſe the circulation languiſhes from profuſe loſs of blood, ſo that the patient faints; during which interval, its impulſe is diminiſhed, and the veſſels being freed from their diſtending power, will not only gradually contract from the natural coheſion of their parts; but the blood being almoſt in a ſtate of reſt, will coagulate, and as it were, ſeal up their contracted orifices. Here

Here it is neceſſary to remark that pernicious and deſtructive method of giving *heating cordials* or *ſpirituous liquors*, with a view to revive the patient, to which, many have unhappily fallen victims; yet it is ſtill ſo prevalent, eſpecially among the lower claſs of people, that it never can be ſufficiently diſcountenanced, or its danger too fully pointed out. Many women, during their *fainting fits*, are plentifully ſupplied with warm ſpiced wine or caudle, with the addition of brandy, which will increaſe the blood's motion, and again force open the bleeding veſſels; and thus they will alternately continue to flood, and faint till the hour of death. The deſign of ſuch proceedings may be good, but the conſequence will be fatal.

Although nothing is more difficult than to root out prejudice from ignorant minds; yet, he who will conform to vulgar errors at the expence of his patient's ſafety, and is afraid to oppoſe them, leſt his own inte-

reſt ſhould ſuffer, acts below the dignity of his profeſſion, aud the principles of an honeſt man.

If the moſt unintelligent of mankind was aſked, whether a perſon over-heated with ſtrong liquor, or one half-chilled to death with cold, would bleed moſt profuſely, on receiving a wound in any part of his body? ſurely he would reply, the former: The caſe is ſimiliar in reſpect to *Uterine Hæmorrhages*; yet ſuch is the prevalence of cuſtom, that the method of giving cordials, as they are called, is ſtill obſtinately followed, contrary to the patient's ſafety, as well as reaſon, and common ſenſe.

Thoſe who conſider the origin and diſtribution of the *hypogaſtric* and *ſpermatic arteries*, which branch off from large trunks, and numerouſly ſupply the uterus; muſt needs perceive with what rapidity the blood paſſes through thoſe veſſels; particularly the firſt, which are very

very large in the gravid ſtate, and conſequently, how ſoon the patient may be exhauſted in profuſe floodings, eſpecially in plethoric habits, or where the action of the heart and arteries is increaſed by ſpirituous liquors, or heating regimen*.

Under ſuch circumſtances, the beſt cordials are thoſe fluids which repleniſh the empty veſſels, without heating the body; and therefore, broths prepared from animal ſubſtances, jellies, and the like, are, of all others, the fitteſt to afford expeditious nouriſhment; as they will ſoon be aſſimilated, and converted into blood, without much aſſiſtance from the ſtomach or vital powers, which at this time are ſo much impaired.

To ſubjoin particular hiſtories of flooding caſes, would prove of little uſe to a practical Reader; ſince profuſe diſcharges of blood happening in the laſt months of pregnancy, are generally ſuch, as no medicines

* Vide *Hewſon*'s Accurate Experiments on the Blood.

dicines have power to remove; for as long as the uterus remains in a ſtate of diſtenſion, ſo long will its veſſels continue to pour out blood, eſpecially where a large quantity of the *placenta* is ſeparated from it; and therefore, it would be very unſafe to expect from medicines, what can only be brought about by ſpeedy delivery, which produces a *mechanical change* in the ſtructure of that organ by removing its contents.

But although this is the principal expedient, and the moſt effectual remedy in ſuch caſes, unfortunately, it does not always ſecure the patient from future danger; for the force and energy with which the womb contracts, being in proportion to the bodily ſtrength, rather than the length of time the patient has been delivered; whenever that is greatly diminiſhed, the flux of blood may ſtill continue. This is the reaſon why a flooding before delivery ſometimes occaſions

ſions the like diſcharge afterwards. In the ſeveral bodies which were opened, when the *Child-bed Fever* proved mortal; I had ſufficient opportunity of aſcertaining this fact, and conſtantly found that where the patient was ſtrong, and not invaded with fever till later than uſual, there the uterus was greatly diminiſhed in bulk; but on the contrary, where ſhe was naturally weak, or rendered ſo by a ſudden attack of the diſeaſe; it then became inert, and was found leſs firm and contracted.

Puzos particularly takes notice, that when the uterus contracts imperfectly after delivery, the conſequence is dangerous; and alſo remarks, that after the patient is delivered by turning the child; ſhe often dies in conſequence of the violence applied, or by a continuance of the diſcharge: he aſſerts, that floodings are moſt profuſe when the labor-pains are weakeſt, and therefore concludes, it would be right in ſuch caſes, to procure pain artificially, by dilating the

os

os uteri, which will put the uterus into a ſtate of contraction, by which the child will at laſt be expelled. This he calles the happy medium between natural delivery, and that which is forced, by violently turning the child; and aſſures us, that by this method he had been extremely ſucceſsful.

I remember an inſtance of the good effect of this method, in a gentlewoman to whom I was called in *York Buildings*, ſeveral years ago. From Sunday evening till the Tueſday following about twelve o'clock, at which time I was deſired to viſit her, the flooding had continued profuſe.

She was attended by her midwife, and had drank plentifully of port wine, in which a hot iron had been quenched, to render it the more aſtringent, as I ſuppoſe: Her aſpect was death-like, ſhe frequently fainted; her pulſe was almoſt imperceptible, and ſhe ſeemed ſinking very faſt. The

The full time of reckoning was expired; but as her ſtrength was much exhauſted, the labor-pains were inconſiderable, and the os uteri but little dilated. I immediately broke the membranes, that the reſiſtance to the languid contraction of the uterus might be leſs, and ſupplied her with *veal broth*, made moderately ſtrong, but without ſalt or ſpices: Of this nouriſhing fluid, given cold, ſhe ſwallowed a teacupful, or as much as her ſtomach would bear, every quarter of an hour, having taken nothing of the like kind before. The cold, freſh air, was alſo freely admitted into her chamber, which ſeemed to give her new life; for ſhe found her ſtrength and ſpirits, as well as her pains, increaſe very faſt; and by dilating the os uteri, they at laſt became ſo ſtrong, as to effect the birth before evening, without the danger of turning the child, which, notwithſtanding the vaſt diſcharge of blood, was born *vigorous* and *ſtrong*; agreeable to what I have remarked elſewhere.

A curious example of the efficacy and reficient quality of nouriſhing fluids in ſuſtaining life and reſtoring ſtrength, even when the aſſimilating powers of body were not ſufficient to convert them into blood, is mentioned by *Lower* in his book De Corde, viz.* *Adoleſcenti ſedecim annos nato cum magna ſanguinis copia (qua de cauſa non refert) perbiduum continuo erumperet, neque medicamentis aut arte ulla cohiberi potuit; juſculis cum reficere & recreare amici & aſtantes curarunt; cumque ea valde avide expeteret atque aſſumeret, fluxus ſubinde concitatior quoque factus eſt, & tandem res eo devenit, ut maſſa ſanguinis fere tota emiſſa, quicquid jam efflueret, dilutum & pallidum, ſanguinis neque naturam neque ſpeciem pre ſe ferret, ipſi juſculo quod toties hauſerat quam ſanguini ſimilius: Atque eadem forma per diem unum aut alterum duravit hic acqueus fluxus, conſtante interim cordi motu ſuo, donec fluxa demum conſopito juvenis paulatim integræ ſaluti reſtitutus eſt, & exinde in virum robuſtum & quadratum accrevit.*

In

* De Corde, Cap ii. p. 63.

In order to know whether *topical applications*, *medicines*, or *manual operation*, will moſt effectually relieve the patient in uterine hæmorrhages; their various cauſes ſhould be attentively conſidered, with the ſeveral circumſtances of the caſe, alſo her habit of body, and the different ſtate of the uterus before and after delivery.

In thoſe fluxes of blood which happen during labor, or at the full expiration of pregnancy, it will be proper to break the membranes, for the uterus will contract after the diſcharge of the waters, and the flooding will therefore be diminiſhed: particularly as the bleeding veſſels will then be brought into contact with the child, as it were, by compreſs and bandage. But as this method only procures relief to a certain degree, if the ſymptoms become urgent and the labor does not quickly advance, the patient ought to be delivered as ſoon as poſſible.

When

When the child's head ſhuts up the os uteri, the patient may continue loſing blood profuſely into the cavity of the womb, although none externally appears; this is to be feared when her pulſe ſinks, attended with great faintneſs and ſudden loſs of ſtrength, without any evident cauſe; and will beſt be known by preſſing up the head in the abſence of the labor-pains, ſo as to let the confined blood eſcape. Such caſes are extremely dangerous and fallacious, where the operator is not ſufficiently upon his guard.

Sometimes the *placenta* has been found preſenting looſe at the os uteri, or adhering to that part; in both caſes, eſpecially the firſt, a flooding will happen, attended with great danger; and therefore will require ſpeedy delivery, which may be effected either by the *long double-curv'd forceps*, or turning the child, as appears moſt eligible from different circumſtances; for as the whole placentary maſs is ſeparated from the womb, the leaſt delay would prove fatal to the patient.

Thoſe

Thoſe hæmorrhages which happen where the child has long been dead in utero, are alſo attended with imminent danger; becauſe, as there is then no longer any circulation in the *placenta*, the caſe will be nearly the ſame as when it preſented looſe, although it does not appear ſo alarming.

January the 20th, 1765, I was ſent for to Mrs. G—, a gentlewoman in *Piccadilly*, who was ſeized with a flux of blood from the uterus, near the full time of pregnancy; as it was not profuſe, and her ſtrength and ſpirits were good, I waited for ſome hours in expectation of ſtronger pains, but as the diſcharge ſeemed to go off, and ſhe was diſpoſed to ſleep, I left her and deſired to be called if it returned with violence, or when the pains became ſtronger. When I viſited the next day, they were inconſiderable, and, the os uteri was very little dilated; but though ſhe continued to loſe blood, her ſtrength ſeemed little im-

paired: In this ſituation ſhe remained ſeveral days, during which, ſhe took a decoction of *bark*, with *tinct. roſar. r.* and a few drops of *tinct. thebaic.*

At laſt the diſcharge became intolerably putrid, and was ſoon followed by a large ſecretion of milk, which flowed from her breaſts by the ſlighteſt preſſure: The flooding now began to increaſe very much; ſhe grew weak and faint, and certainly would ſoon have ſunk under the diſcharge, had ſhe not ſpeedily been delivered.

The child had been dead ſeveral days before the ſecretion of milk, which began as ſoon as the *placenta* was ſeparated from the womb; for then the hæmorrhage was obſerved to increaſe. The ſame circumſtance may happen when the fœtus in utero is weak, and the abſorbing power of the *placenta* from thence in part deſtroyed; agreeable to what is laid down by *Hippocrates* in his Aphor. *viz. Mulieri in utero gerenti,*

*renti, ſi multum lactis ex mammis fluxerit, infirmum fœtum ſignificat.**

In ſtrong habits, where the uterine fibres are tenſe, the flooding generally ſtops, and the placenta is eaſily excluded ſoon after delivery; but on the contrary, when the patient is very weak, much longer time is then required for its coming away; and if it ſhould be unwarily extracted before the uterus has had ſufficient time to contract, or where it afterwards continues looſe and inactive; a mortal hæmorrhage may chance to enſue. Indeed it ſometimes happens that the loſs of blood is profuſe, even after delivery, where the placenta remains; under which circumſtance it may be proper immediately to take it away: Here the action of the uterus is ſo extremely languid, that it has not power either to expel the placenta, or large quantity of coagulated blood collected in its cavity: A fatal inſtance of

* Sect. v. Aphor. 52.

this kind occurred to me in the year 1770, in the caſe of Mrs. W——— near Weſtminſter-Bridge, to whom I was called about an hour and a half after ſhe had been delivered by her midwife.

The internal uſe of medicines, as far as I have obſerved, ought never ſolely to be depended upon in ſuch caſes; for although they may afford ſome relief in a certain time; the patient would generally bleed to death before they could have ſufficient effect; and therefore, immediate recourſe muſt be had to topical applications, ſuch as *oxycrate* or *ſharp vinegar*, in which thick linen compreſſes have been dipped, and which are to be applied cold to the belly and loins, and renewed as ſoon as they grow warm, otherwiſe they will relax rather than conſtringe.

Gentle preſſure on the belly, by means of a broad circular roller, will alſo prove of ſervice, by reſiſting the too rapid courſe

of

of the blood through the uterus, and alſo by aſſiſting its languid contraction.

The patient ſhould be kept very *cool*, and if neceſſary, *expoſed to cold air, even in the midſt of winter, by opening doors and windows*, ſo as to let it be equally diffuſed round her chamber; her drinks ſhould be given *cold*, and acidulated with lemon juice or mineral acids; and if ever the uſe of *ſtyptics* can prove of ſervice, perhaps it may be here; where the uterus, although empty, has not the power of being reſtored to its former ſtate. I have found a ſtrong *decoction of bark* and *elixir of vitriol*, with a ſmall quantity of tincture of cinnamon to make it grateful, more efficacious than any thing I have ſeen tried.

The form may be varied at diſcretion, and if neceſſary, the extract may be added, viz.

℞

Decoct. Peruv. Cort. ℥ *i*

Extract. ejuſd. moll. ℈ *i*

Tinct. Rosar. rub. ℥ss

—— *Cinn.* ℥iij

Confect. Alkerm. ℥j *fiat hausus pro re nata exhibendus.*

When the discharge is attended with much pain or irritation of the uterus; five or more drops of *thebaic tincture* may be joined with each draught; or, what will produce its effect with more certainty, a liberal dose of the *pil. e styrace*, or *extract. thebaic.* The first may be given from two to six grains or more, and the last from half a grain, to a grain and half, which may be repeated as occasion requires; especially, where the habit is not plethoric, and when the symptoms are extremely urgent.

If all those methods fail, and the patient is in imminent danger; the *aqua aluminosa batean.* or a weak solution of *colcothar of vitriol*, injected into the cavity of the uterus as a styptic, will probably restrain the discharge; by coming into immediate contact

with

with the orifices of the bleeding veſſels; but thoſe remedies are only applicable after delivery, when it is empty and uncontracted.

My worthy and accompliſhed friend Dr. *Gordon*, a native of Denmark, and aſſiſtant to the Profeſſor of Midwifery at *Copenhagen*, who attended my Lectures laſt winter, informed me, that agreeable to the above hints, they had injected *cold water* into the *uterus*, in ſeveral caſes of profuſe flooding, with the moſt deſirable ſucceſs, and without the leaſt danger, or ſubſequent bad ſymptoms. *Saxtorph* alſo recommends oxycrate to be injected into the *womb* in uterine hæmorrhages, after delivery, and mentions ſeveral caſes in which it ſucceeded after every other method had failed.*

Hoffman tells us, he ſucceeded in ſtopping a profuſe *uterine hæmorrhage*, which had withſtood every other method, by paſſing up *pledgets of lint*, dipped in a ſolution of

* Vide, *Acta Societatis Medicæ Haunienſis.*

colcothar of vitriol, as high into the vagina as poſſible; and ſince the patient afterwards conceived, and had a happy delivery, he obſerves that the functions of the uterus were not in the leaſt injured by the ſtyptic power of this application.

M. Leroux, ſurgeon to the General Hoſpital at *Dijon* in France, two years ago, publiſhed a Treatiſe profeſſedly on *Uterine Hæmorrhages*, with which he honored me as a Preſent; he particularly mentions the method laid down by Hoffman, as well as thoſe which I have recommended.

Levret hit upon a very odd, but ingenious expedient in ſtopping a violent flooding after delivery, which otherwiſe would ſoon have proved fatal: He introduced a piece of *ice* into the uterus, which being ſtruck with ſudden chill, immediately contracted and put a ſtop to the hæmorrhage.

The moſt extraordinary inſtance of a flux of blood from the womb, which I have ever heard of, fell under the obſervation of the late Dr. *Cole*, who, ſome years

years ago, practiſed midwifery in *London* with great reputation: On opening the body, the whole ſurface of the *placenta* was found adhering to the uterus; but a great part of the *falſe chorion* inveſting the membranous bag which contains the child, was ſeparated from it; and conſequently, an infinite number of thoſe veſſels with which it is ſupplied from the uterus, being torn aſunder, the effuſion of blood was ſo great as to become mortal. From what cauſe this accident was brought on I have not been able to inform myſelf. Thoſe ſlight diſcharges, which ſometimes go off, and allow the patient to proceed her full period of geſtation, have been imputed to loſs of blood from the *falſe chorion* of the bag only, and not to a ſeparation of the *placenta* itſelf; and indeed notwithſtanding what has already been ſaid, I am ſtill inclined to think ſo; for whenever any part of the laſt is diſ-united from the uterus, there is the greateſt reaſon

to

to ſuppoſe it will never again adhere, although *Noortwyk*, in his hiſtory of the gravid uterus, has aſſerted the contrary.*

Some floodings have occurred, attended with very uncommon circumſtances. The celebrated *Albinus* mentions a caſe, where only the central part of the placenta being looſened, a large quantity of coagulated blood was lodged between it and the womb, as it were in a bag; and conſequently not a drop was externally diſcharged, ſo as to foretel the danger.

Sometimes blood has been found to proceed from the vagina; and at other times from a rupture of veſſels on the concave ſurface of the placenta, or even in the funis itſelf, which muſt neceſſarily ſoon prove fatal to the child, but will not proportionably endanger the mother. The preternatural ſhortneſs of the funis, or it being twiſted round the child's neck, have alſo been ſuppoſed to bring on flooding; for if it

* *Noortwyk* de Uter. Gravid. p. 28.

it then moves powerfully, the placenta may be torn from the uterus.

Whatever ſubjects the body to violent motion, or agitates the mind, ſhould be carefully avoided; for it has already been ſhewn in treating of *Child-bed Fever*, at page 88, how much the force of the circulating blood on its veſſels is increaſed by muſcular motion. Coughing, ſneezing, a teneſmus, or other efforts which lay ſtreſs on the womb, all tend, in degree, to deſtroy its union with the contained parts; eſpecially, immoderate exerciſe in the laſt months of pregnancy, when the child is large and ponderous.

Paſſions of the mind, eſpecially ſudden terror, have alſo frequently been known to produce this diſorder; a very remarkable inſtance of which is related by *Salmuth*, as follows* :

Archi-

* *Salm.* Obſer. Med. Cent. x. 3. xli

Archiatri Anhaltini D. S. K. conjunx puerpera lactat infantem ſub noctem. Per jocum a mulieribus quibuſdam ex convivio domum tendentibus fores & feneſtræ nimis impetuoſe pulſantur. Illa hinc admodum perterrita, totoq. corpore contremiſcente, repente excitatur profluvium menſium, in annum integrum perdurans, & adeo quidem copioſum, ut per ſtragula etiam defflueret, atque ex eo ipſa tandem moreretur.

Some years ago, I was deſired to viſit a gentlewoman near *Berkley-Square*, who was ſeized with flooding from overhaſty extraction of the *placenta*, by which ſhe was reduced to the laſt degree of weakneſs: I deſired ſhe might be kept extremely quiet, and ſupplied with frequent nouriſhment; I alſo directed a mixture with *tincture of roſes* and ſoft extract of *bark*, *&c.* of which ſhe took two ſpoonful as often as her ſtomach could bear: In a ſhort time ſhe found herſelf much recovered, but towards morning, by only turning herſelf haſtily in bed, the diſcharge im-

immediately returned in great profuſion. I was again called, and found her to all appearance at the point of death ; but by the application of thick compreſſes dipped in cold vinegar, to her belly and loins, with the ſame methods as before, ſhe at laſt perfectly recovered.

Exceſſive anger, or ſudden fear produce ſpaſm, or contraction of the vaſcular ſyſtem, by which blood is driven from the ſurface to the centre of the body ; as is evident from paleneſs of the face, which is inſtantly followed by throbbing and palpitation at heart ; ſoon after, the countenance becomes florid, from re-action of the heart, which throws out blood to the ſurface again. Hence, during the ſpaſm, the venous blood is violently driven to the right auricle, and the velocity of the arterial blood diſcharged from the left ventricle into the *aorta deſcendens* will therefore be conſiderably increaſed, and conſequently, that circulating through the

the arteries of the womb, from which the placenta may be forced away, and hæmorrhage enſue.

This tumult in the body is produced by nervous influence which affects it like a ſlight electric ſhock; accordingly, women of delicate conſtitutions, whoſe nervous ſyſtem is extremely irritable, are, of all others, the moſt ſubject to thoſe complaints; I have likewiſe obſerved, in ſuch habits where the patient was not pregnant, and the *uterus*, therefore, not ſuſceptible of the impreſſion; that pain in the bowels or diarrhœa have often been brought on, and ſometimes a dangerous fever; particularly when the former ſymptoms did not occur.

Bleeding and *ſtyptics*, with the liberal uſe of *opium*, and application of *ligatures* to the extremities of the body, are the remedies which have been principally depended upon, for the cure of *uterine hæmorrhages*; and therefore it will be neceſſary to examine their effects. By

By attending to the circulation, it is evident, that *bleeding* can ſeldom be proper, except in the beginning of thoſe floodings which happen before delivery; or when they ariſe from plethora; an inflammatory fever, or external violence. Sometimes, indeed, if the patient ſhould be threatened with this malady, after violent ſurprize, it may alſo be requiſite; but as in general, weakly, hyſterical women, who have been obſerved to bear the loſs of blood with inconvenience, are the oftenеſt thus affected, it ſhould be directed with great caution; eſpecially, as *opiates* and the *warm bath* will anſwer much better, by diſſolving the ſpaſm, and ſoothing the nerves into a ſtate of tranquillity.

Beſides; it has been proved that the contraction of the uterus after delivery, upon which the abatement of this diſcharge chiefly depends, will be in proportion to the bodily ſtrength; and therefore, an additional loſs of blood from the arm at that period,

period, would farther endanger the patient, both by diminiſhing the action of the womb, and giving ſo ſudden a check to the circulation, as might occaſion dangerous faintings, or perhaps a mortal ſyncope.

Styptic medicines have been ſuppoſed to reſtrain internal hæmorrhages, by entering the blood, and conſtringing the orifices of the bleeding veſſels; and therefore are accounted ſalutary, and efficacious in ſuch complaints; but with what foundation, I appeal to common experience.

If ſtyptics produce their effect by contracting the veſſels, they muſt alſo increaſe their action on the contained blood; for it will be nearly the ſame thing, with reſpect to the velocity of the blood; whether its veſſels are preternaturally filled, when their diameters remain the ſame as before, or whether their diameters are preternaturally leſſened, when their quantity of blood is the ſame; or in other words,

words, *when the ſame quantity of blood is contained in a narrower ſpace, its veſſels will from thence become fuller.* For example; if a certain quantity of any fluid is forced through two flexible tubes of different diameters, but of the ſame length, and in the ſame given time; its velocity in the ſmalleſt tube will neceſſarily be greater than in the other: Hence it becomes manifeſt, that if ſtyptic or aſtringent medicines act by contracting the orifices of the bleeding veſſels, they muſt alſo act univerſally on the vaſcular ſyſtem; and if ſo, by leſſening the diameters of the ſeveral veſſels, their action on the contained blood will be increaſed, which muſt alſo neceſſarily increaſe the flooding.

If it ſhould be alledged that they operate by coagulating the blood, and not by bracing its veſſels; or that, like *opium*, they produce their effects by mediation of the nerves of the ſtomach, without entering the blood at all; it is to be remarked, that

whatever thickens the blood, will, moſt probably, alſo conſtringe its veſſels. In ſhort, by what means ſoever they affect the habit; it is plain that an hæmorrhage can only be ſtopped either by ſuch things as contract the ruptured veſſels, or diminiſh the force of the fluid paſſing through them. The firſt of theſe effects has already been conſidered; and the laſt muſt be denied, ſince what occaſions *thirſt and fever*, as ſtyptics do, cannot properly be ſaid to leſſen the circulating power, but increaſe it.

No wonder then that *Hoffman* aſſerts, he has often ſeen Uterine Hæmorrhages increaſed by ſtyptics, but alſo obſtinate complaints of the chronic kind, ſuch as cachexy, dropſy, or hectic fever, brought on by their prepoſterous uſe. Agreeable to what is advanced by that excellent practical phyſician, I have ſeldom ever known the *pulv. ſtyp. tinct. ſaturnin.* or other powerful aſtringents, given in ſuch caſes, without an increaſe of the hæmorrhage, or ſome other

bad

bad effect: That they will generally render the body coſtive, and often create great thirſt, head-ach, and other febrile ſymptoms, is certain; but the chronical complaints, with which they are charged, were more probably owing to the profuſe loſs of blood happening at the time they were adminiſtered, than to the ſubſequent injurious qualities of thoſe medicines: However, the following inſtance, as well as ſeveral others, which it would here be unneceſſary to mention, will ſhew that they are not void of danger, and therefore, ought to be directed with the utmoſt caution.

In the year 1770, a lady in *Stanhope-Street*, *May-Fair*, of a very delicate, valetudinary habit, had been long ſubject to the *fluor albus*, as well as an immoderate flux of menſes at undue periods, which had very much reduced her ſtrength: By the advice of an eminent phyſician, ſhe took *ſacch. ſaturn.* in a bolus, twice a-day, and continued it upwards of a week; but did not find that

it either reſtrained the diſcharge, or had any good effect reſpecting her bodily ſtrength; on the contrary, it at laſt brought on an obſtinate conſtipation of the bowels, attended with ſuch racking, colic pains, and oppreſſion at ſtomach, as obliged her to keep her body almoſt double. Being deſired to viſit her, I directed draughts with *manna* and *ol. amygd.* with *emollient clyſters*, and the *warm bath*; ſhe alſo drank warm veal broth by intervals. After two or three lax motions, ſhe was much eaſier; but as the ſoreneſs of her bowels continued, ſhe took an emulſion with *ſperm. ceti*, for a few days, which removed it; and afterwards, by the uſe of a ſtrong decoction of *bark*, with an *injection* and the chalybeate waters, ſhe was entirely freed from the fluor albus and all her other complaints.

Internal hæmorrhages will often at laſt ſpontaneouſly ceaſe, without the aſſiſtance of any medicines whatever, eſpecially when profuſe; for as the power of the heart on

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the circulating blood will then be greatly diminiſhed, its momentum on the bleeding veſſels will be conſiderably leſs; and it has already been remarked, that they will naturally contract when freed from their diſtending power. Hence there is reaſon to think that the ceſſation of this diſcharge, after the exhibition of ſtyptics, is not owing to ſuch medicines, but to a diminution of the circulating force from loſs of ſtrength.

Inſtead therefore of bracing the ſolids, it would be more proper to recur to the uſe of things which have a power to relax, and as it were, ſuſpend their action: Such medicines are called *ſedatives*, and are ſuppoſed not only to leſſen the circulating force, but produce a more equal diſtribution of blood, and occaſion the derivation of a larger quantity from the interior veſſels to the bodily ſurface. Hence the uterine arteries will be relieved from their diſtenſion, and the flux of blood proceeding from thence will conſequently be leſs. To this

end, the fourth part of a grain of *emetic tartar* may be given, and repeated by due intervals, ſo as only to excite nauſea, without vomiting; alſo *ſaline draughts*, with *nitre*; or the *ſal ſedativ. of Hombergh*, from five grains to a ſcruple. In what manner ſuch medicines operate, is difficult to determine; but that they often have a ſalutary effect, is evident from experience.

How far the effect of *opiates* may be depended upon, or under what circumſtances they are pernicious in flooding caſes, it will next be neceſſary to enquire. From ſome experiments made by Dr. *Alſton* on frogs, it appears, that *opium* taken internally, will for a time, retard the blood's motion, by diminiſhing the vital power of the heart; and this circumſtance, ſo far as it regards thoſe ſmall aquatic animals, is ſtill further confirmed by that incomparable Phyſiologiſt the late Dr. *Whytt:* Such experiments are pleaſing and curious, but the inferences ariſing from them, when applied to the

the human body, are not ſo concluſive and ſatisfactory, as they at firſt appear; for many ſubſtances which produce a mortal effect on one ſpecies of animals, are not found injurious to another; and the ſame animal is very differently affected by the ſame thing at different times. Would it not therefore, be a more certain way to determine the effects of *opium* on human bodies, by attending particularly to its operation, on ſuch bodies only?

In ſeveral caſes, where it was neceſſary to direct *opiates* for women, at the beginning of labor, to remove their unprofitable pains and procure ſleep, I have been ſurpriſed to find they had a very contrary effect, and that from thence the pains were evidently much increaſed.

Dr. *Young*, who wrote profeſſedly on *opium*, is the only author I know, that takes notice of the ſame thing. His obſervations are founded on long and extenſive experience, which he confeſſes often contradicted the

opinions he had adopted from theory; conſequently he frequently changed his methods of practice; and it is much to be wiſhed that an example ſo laudable, was more univerſally followed. Indeed, the greateſt part of his book appears to be a true hiſtory of the effects of this extraordinary medicine, and as he rather relates what he ſaw, than what he expected to ſee, his authority is more to be regarded.

Baron Haller, in his diſſertation on the irritable parts of animals, obſerves; that although *opium* deſtroys the periſtaltic motion of the inteſtines, and irritability of the body in general, it leaves the heart unimpaired. What I have ſeen of its effects on the human body, exactly correſponds with this remark; for though it may ſuſpend ſome of the ſecretions, it rather, at firſt, *quickens the blood's motion*, than retards it. For inſtance, a moderate doſe will ſtrengthen and inlarge the pulſe, the eyes ſparkle, the countenance becomes

becomes florid, and a heat and itching of the ſkin ſucceeds; but what appears moſt extraordinary, thoſe pains which have ſometimes been increaſed by it, in a ſmall quantity, were ſpeedily removed by giving a more liberal doſe. In ſhort, I have clearly ſeen internal hæmorrhages rather increaſed than leſſened by its uſe; and therefore, think it ought not to be given, except in caſes of neceſſity, as its effects are evidently ſimilar to thoſe of volatile medicines, or ſtrong cordials.

In the beginning of floodings which ariſe from plethora, fever, or external violence, eſpecially where the *pulſe is hard*, and the ſkin dry; both *opiates* and *ſtyptics* are highly pernicious. *Bleeding*, *laxatives*, and *ſpare diet*, with cooling regimen, are beſt adapted to anſwer the intention of cure. The judicious *Hoffman*, therefore, with great reaſon, directs the liberal uſe of *ſpring water* with *ſpirits of vitriol* and *ſyrup of red poppies*, as a medicine more

ſalutary

ſalutary than the moſt boaſted ſpecifics: On the contrary, in the decline of thoſe diſcharges, where the *pulſe is weak*, and the *circulation languid*, from loſs of blood, it will be proper to keep the patient in a horizontal poſition, leſt ſhe ſhould faint. A *ſtrong infuſion of bark*, and even cordial medicines may alſo be adminiſtered, eſpecially after delivery, where there is always leſs danger of the flooding's return; the reſiſtance to the womb's contraction being then taken away. Nouriſhment ſhould be given often, and in ſmall quantities, that the empty veſſels may be repleniſhed by degrees; otherwiſe, as the ſtomach is weak, and aſſimilating powers of the body much impaired, the patient will be apt to fall into *dropſy*, *conſumption*, or *hectic fever*.

The ancients applied *ligatures* to the inferior extremities, for the relief of uterine hæmorrhages; from which it may be concluded, they knew more of the circulation than

than has been imagined; for it is plain they had recourſe to this method, with a view to retard the venous blood in its return to the heart, and conſequently to abate the circulating force. But this practice does not ſeem juſt, neither is it found experimentally uſeful; but on the contrary, dangerous and irrational.

Let us ſuppoſe, for inſtance, that a column of blood is driven down the *aorta deſcendens*, by the action of the heart, and that it is diſtributed to the lower extremities, by the diviſion and ſubdiviſions of the *iliac arteries*, from which the *uterus* at laſt receives its blood. The extreme branches of all theſe arteries have correſponding veins, which take up their blood by *anaſtomoſis*, and after uniting and re-uniting, they form the *vena cava* inferior, or one large trunk, which returns blood from the inferior parts of the body, to the right auricle of the heart; if therefore, from any compreſſion of thoſe veins, the reflux of their blood is prevented,

they

they cannot then freely receive it from the arteries; conſequently, the *hypogaſtrics* and *ſpermatics* which ſupply the *uterus* with blood will become over-charged and diſtended, and the patient will flood more abundantly; as the following ingenious experiment will clearly demonſtrate.

Dr. *Hamilton* of *Edinburgh*, being called to a young woman who had labored under obſtructed menſes for near ſeven months, from catching cold; and finding that various remedies had been tried in vain, directed compreſſes to be applied tight upon the *crural arteries*, by means of a tourniquet, which after remaining about twenty minutes, rendered the pulſe quicker; in half an hour, ſhe began to perceive a ſenſe of weight and fulneſs in the region of the uterus, and in an hour and a half after the firſt application of the ligatures, the menſes began to flow.

If it ſhould be alledged, that the effect here produced, was owing to compreſſion of the

the *arteries*, and not the *veins*; it may be replied, that the means made uſe of to compreſs the firſt, muſt neceſſarily have the ſame effect on the other. But ſetting this reaſoning aſide; if ſimple preſſure on the crural arteries has been known to bring on menſes, after long obſtruction, by impeding the direct courſe of their blood, and throwing a larger quantity on the *uterine veſſels*; ſo would the ſame degree of preſſure when applied to the *veins* themſelves; which may be looked upon as ſo many reflected arteries, void of pulſation, becauſe of their diſtance from the heart, which cannot extend its influence beyond the *anaſtomoſes* of theſe two orders of veſſels.

Having laid before the Reader ſuch general remedies as have been thought moſt conducive to the relief of that dangerous *malady* under conſideration; and pointed out the pernicious tendency of a heating regimen, or the exhibition of cordial medicines; I ſhall now endeavour

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to ſhew the good effect of a *contrary method*, both as ſupported by reaſon, and experience; at the ſame time confeſſing, that the peruſal of Dr. *Stevenſon*'s ingenious Eſſay on the effects of heat and cold on human bodies*, and afterwards, what I had read in the Commentaries of the celebrated *Baron Van Swieten*, in ſome meaſure, firſt ſuggeſted to me the propriety and expediency of ſuch practice. The firſt of thoſe authors has very ſenſibly refuted the abſurd doctrine of *derivation* and *revulſion*; and ſhews that *pediluvium*, or application of warm water to the feet, the effect of which was ſuppoſed to depend upon thoſe principles, is owing to a cauſe directly contrary to that hitherto aſſigned; as the following experiment will clearly evince.

Dr. *Stevenſon* cauſed two youths to put their legs in warm water, and whilſt they continued there, he counted their pulſes by a watch meaſuring ſeconds, according to the

* Edinburgh Medical Eſſays, vol. vi. p. 8.

the different degrees of heat in the water, which was gradually increaſed and applied from time to time: At eight o'clock in the evening, the pulſe of the firſt beat ſixty-ſix, and that of the ſecond eighty-four. As the heat was increaſed, they began to breathe quicker, their countenance became florid, the veins of the face and hands were much diſtended, and the pulſe increaſed in proportion; in the firſt, it beat eighty, and in the ſecond, ninety-eight ſtrokes in a minute. In the above experiment, both their pulſes, which in the beginning, were ſoft and ſmall, became full and hard; and not only the parts immerſed in water, but the whole body was ſwelled: The pulſes of the wriſts and temples alſo beat fuller and quicker, as well as thoſe arteries derived from the *aorta deſcendens*; and conſequently, there could be no *revulſion*. The legs being then removed out of the warm water; in about half an hour's time, all the above ſymptoms of fulneſs went off,

off, and the pulſe in each gradually returned to its former ſtate.

From theſe premiſes, the Doctor, with reaſon concludes, that the blood paſſing through the veſſels of the legs, being heated by the *pediluvium*, imparts its additional warmth to the general maſs; which being rarefied, takes up larger ſpace in the veſſels, and circulates with more rapidity than before; and thus every part of the body is affected with a ſenſe of fulneſs. Hence, he infers the great danger of this application in *hæmorrhages* from the noſe or lungs, or in diſorders of the head or breaſt, ariſing from plenitude; caſes where it was often formerly applied, and muſt as often have been pernicious to the patient. What is ancient or modern, is not therefore right or wrong; though this is not the only inſtance where things, however prepoſterous and abſurd, have derived ſuch ſanction from antiquity, as to render them the ſtandard of future practice.

Van

Van Swieten, in treating of the diſeaſes of virgins, expreſſes himſelf in the following manner:

Cum autem pedes & crura ab iliacis arteriis externis ſua vaſa accipiant, uterus ab hypogaſtricis non tandem, ſed ab iliacis externis etiam & variis inter ſe anaſtomoſibus communicent (uti in tabulis Euſtachianis (l) *videri poteſt) facile patet, quare, per balnea laxatis pedum vaſis, & dein per frictiones accelerato motu in iisdem, major copia ſanguinis derivetur verſus aortum, ubi in iliacas dividitur, adeoque & magis tunc urgeantur uter vaſa; ſicque ſperari poſſit, illorum extrema ita dilatari poſſe, et menſtruum fluorem dimittant.*

Simul notandum eſt, practicis obſervatis conſtare, calorem pedum prodeſſe menſtruantibus; frigus autem nocere; imo quandoque ſubito menſtrua ſupprimi, ſi admodum frigeſcant pedes; quod ſæpius obſervavi; præcipue ſi pavimento marmoreo frigido pedibus inſiſtant diu. Solent enim ab hac cauſa ſola, contractis ſpaſmodice inteſtinis,

(l) Tab. xiii.

dolores colici oriri moleſtiſſimi, in quibus magnum levamen ſentitur, ſi pedes incaluerint, imprimis per frictiones. Omnia enim abdominis viſcera male afficiuntur, dum pedes intenſe frigent; adeoque mirum non eſt, & uteri vaſa ſtringi, ſicque ſupprimi, fluorem menſtruum..

The experiment mentioned by the firſt author, is a clear and ſatisfactory illuſtration of the effect of *heat* on the human body; and the practical obſervations of the latter, as appears by the above quotation, as ſufficiently demonſtrate the action of *cold*, in conſtringing the veſſels of the uterus, and ſuppreſſing the menſes, even when applied to the feet only; from whence I would propoſe the following queſtion; *viz.* If the *topical application of cold* to the feet, has been found to put an immediate ſtop to an habitual diſcharge of blood from the uterus, in oppoſition to the powerful efforts of nature; is there not the greateſt reaſon to believe, that the ſame application would prove ſingularly efficacious,

efficacious, either in reſtraining, or totally taking away that *hæmorrhage* from the womb which is preternatural ?

Heat not only relaxes the ſolids and diſſolves the fluids, as may be ſeen by its effects on thoſe animal ſubſtances, called jellies and glue, but alſo rarefies the air contained in the body, by which the whole maſs will be expanded ; and by taking up more ſpace in the veſſels, their diameters will be enlarged, which will lay additional ſtreſs upon the ſolid ſyſtem ; ſo that the effects of rarefaction and plethora, pro tempore, will be the ſame. *Cold*, on the contrary, condenſes air, and confirms the blood's texture, for even the hardeſt metals, as appears by the *pyrometer*, are contracted, or expanded according to the degrees of heat or cold applied.

From theſe circumſtances, but chiefly from *repeated experience*, I would infer that the application of *intenſe cold* to the body, is more to be depended upon, and will pro-

duce more ſalutary effects in *uterine hæmorrhages*, than any thing elſe which can be deviſed; although I foreſee an objection, which I could wiſh to obviate before I go farther. As cold affects the body by contracting the ſolids, and repelling blood to the interior parts; it may be ſaid that its action will be equally pernicious with that of *ſtyptics*: The fact ſeems to be this; when the body is heated, the circulating power is increaſed, and the blood is rarefied and rendered more fluid, but its veſſels being dilated, if they at laſt give way, will then diſcharge their contents more freely; but when it is ſuddenly chilled, although the application of *cold* may contract and leſſen the capacity of its veſſels; it condenſes the blood at the ſame time, ſo that in effect, they will not become fuller than before; beſides, as I have always obſerved, that the flux of blood abated in proportion to the degree of cold; experience, which ought to ſuperſede all theory,

ſhews

ſhews that the effect of cold in condenſing the fluids, is more than equal to its power in contracting the ſolids; or at leaſt, that the danger already hinted is not to be feared.

Floodings which are attended with frequent and long continued *fainting fits*, often prove mortal; yet I have obſerved in ſome of thoſe where the pulſe was weak and intermitting, and who were apparently ſinking very faſt; that by frequently admitting freſh, cold air, they recovered, as if inſpired with new life. This does not ſeem difficult to account for, as the heart has not power to propel its blood through the pulmonary arteries, till the lungs are ſufficiently blown up with cold air; which, on account of its greater gravity, is much fitter for the purpoſes of reſpiration, than the inelaſtic, confined atmoſphere of a warm bed chamber.

In *Auguſt*, 1773, I received a letter from a gentleman at Kirby-Londſdale, in Weſtmoreland, of which the following is an ab-

ſtract. "I had lately an opportunity of ſeeing the good effects of *cold* in a flooding after delivery; the particulars of which are as follows. About a month ago, I was called to a woman in labor with her fifth child, at a village a few miles from this town: The labor was natural, and in a ſhort time the placenta came away with eaſe. About half an hour after, I took a walk in the fields, but was called in great haſte, and at my return found her fainting and flooding very profuſely. On enquiry, I was informed the women had given her a large quantity of ſpirits, to which I imputed the diſcharge. I threw open the door and windows of the room, for the free admiſſion of air, *and gave her cold water plentifully to drink*; by means of which the flooding almoſt immediately abated without any return."

A gentleman who practices midwifery in London communicated to me the following caſe;

November

November the 11th, 1773, a patient of mine was ſeized with a profuſe flooding and fainting, about half an hour after delivery: To the beſt of my knowledge, ſhe loſt about *three pints of blood.* I immediately let in cold freſh air upon her, by opening the doors and windows ; *and gave her two glaſſes of cold water to drink* ; having no vinegar at hand, I applied thick cloths, dipped in cold water, round her loins, over the lower part of the abdomen, and to the vagina : The good effect was evident, for the flooding very ſoon ceaſed ; in about twenty minutes the patient became ſenſible, and in a voice ſcarcely to be underſtood, deſired ſhe might be covered with cloaths, for ſhe was dying ; as ſhe ſeemed to be very cold, and was in a kind of ſhivering-fit, I complied with her requeſt, but ſoon found my error in ſo doing ; for when ſhe became warm, the flooding returned, which obliged me to have recourſe to my former method, and to apply cloths wetted with vinegar, which by this time

was procured; in conſequence of which, the diſcharge of blood again abated in a very ſhort time, and my patient happily recovered without any relapſe.

Every one who breathes with difficulty, can tell from his own experience, what vaſt relief he finds in going from a hot room, where the air is too much rarefied, into one much cooler, where it is more elaſtic and pure. The frequency of a natural pulſe to the act of reſpiration, is in general as *two to three*; and the laſt is found to have a very ſenſible effect on the firſt, both as to its ſtrength and quickneſs. Beſides, as a conſiderable part of the whole maſs of blood is continually paſſing through the lungs; ſucceſſive draughts of that *cold fluid*, conſtantly applied to their interior ſurface, will contribute greatly to cool and condenſe it; as nothing but the membranous expanſion of air veſſels is interpoſed; and as air in the blood, will, by alternate changes always

always remain in *equilibrio* with that of the common atmoſphere.

From ſuch a rarefaction of air, the veſſels of animals placed in the exhauſted receiver of an air-pump, will ſwell and even burſt; and upon the ſame principle, periodical pains, and fluxes of blood ſometimes happen at full and new moon, when the atmoſpherical preſſure on the ſurface of the body is greatly diminiſhed. Thoſe of delicate habits, like ſo many *living barometers*, feel the influence of the ſame cauſe, and become weather-wiſe, on the approach of high winds or ſudden falls of rain.

According to *Arbuthnot*, the internal ſurface of the lungs is greater in its extent, than all that part of the ſkin expoſed to air; and therefore, the large quantity of this fluid received by inſpiration, added to that externally applied to the body, will have very great effect in condenſing the maſs of blood, and reducing it into a ſmaller ſpace,

ſo

ſo as to leſſen the diſtenſion of its veſſels; and conſequently, will not only tend to ſecure the patient from danger of a ſyncope, but will alſo abate the flooding.

Next to the free and unlimited uſe of *cold air*, with the application of compreſſes dipped in cold vinegar, to the belly and loins; I have often, according to the practice of *Hoffman*, directed large and repeated draughts of *ſpring water*, with remarkable good ſucceſs; for, out of *upwards of three thouſand women* delivered in the *Weſtminſter Lying-In-Hoſpital*, ſeveral of whom were ſeized with floodings, both before and after delivery, only two of them failed under this treatment; as far as it was prudent to truſt to it, or any other means, *independent of delivery itſelf.*

When the patient is very weak and much exhauſted, beef-water or weak broth taken cold, will be more proper than water; and where the laſt is directed, it will be neceſſary to tincture it with *ſyrup of red*

red poppies, or ſomething of the like kind, to give it a medicinal appearance, which will render it more acceptable: But, if notwithſtanding, the flooding becomes ſo profuſe as ſuddenly to endanger life; her *feet and legs ſhould be plunged into cold water*, and may remain there as long as they are ſenſibly affected by the cold; after which, they ſhould be taken out for a few minutes, and then immerſed again. Clyſters of beef water may alſo be injected cold, and repeated as occaſion requires.

So long as ſtrength continues, and the pulſe remains good, it will not be neceſſary to proceed to the delivery with violence, but wait, at leaſt for a time, that the os uteri may relax and dilate by the effect of pains; always remembering that the indication of danger is rather to be taken from the nature of the ſymptoms than the quantity of blood; as it is incredible how much ſome have loſt and yet ſurvived; whilſt others will ſink under

under a very inconſiderable diſcharge. *Mauriceau* remarks, that where the orifice of the womb was ſoft, thin, and equal, the patient generally recovered; but if the contrary, ſhe often died; *Peu*, in his practice of midwifery, ſeems to be of the ſame opinion, and is ſo ſenſible of the great danger of applying violent force to dilate the os uteri, that he pronounces it death to the patient, from his own experience*.

Delicate women, who have lax fibres, of all others, ſuſtain loſs of blood with moſt danger, being extremely apt to faint, and are ſubject to violent head-ach. In ſuch habits, eſpecially after delivery, and in caſes of extreme weakneſs, *hartſhorn jellies*, with rheniſh wine, and thoſe things which give nouriſhment to the body, and conſiſtence to the blood, may be advantageouſly directed: A ſtrong infuſion

* *Peu*, Pratique des Accouch. chap. xv. p. 516.

ſion of the *cortex* with cinnamon, in French claret, will alſo make a very grateful and generous cordial, without heating the body.

In long-continued fainting-fits, where there was danger of a total ſtagnation of blood, I have ſometimes directed the following volatile liniment with advantage, to be rubbed upon the pit of the ſtomach, in quantity of a tea ſpoonful; over which, a hot flannel ſhould afterwards be immediately applied.

℞.

Ol. amygd. ʒ *iſs*

Spt. volat. aromat. ʒ *iij miſce & fiat linimentum.*

The ſymptoms of immediate danger are principally theſe; viz. the eyes grow dim, and the extremities cold; the pulſe becomes weak and intermitting, and the patient frequently faints; cold ſweats, with ſubſultus tendinum, or convulſions

ſucceed

ſucceed, and the hiccough is generally the laſt fatal ſymptom, which ſhews that death is near.

But notwithſtanding ſome of thoſe alarmimg ſigns, for they ſeldom all appear, as delivery is the only remedy which can give the patient a chance for life; no one who is truly ſenſible of the duties of his profeſſion, will timorouſly deſert her in the time of her utmoſt need, but deliberately follow the rules of practice, and ſpeedily endeavour to perform that by *Art*, which *Nature* is unable to accompliſh; without regard to the prejudices of the ignorant vulgar, or that undeſerved cenſure which ſo frequently follows, where the event is fatal.

Whenever ſpeedy delivery becomes abſolutely neceſſary, it ſhould be attempted without delay, even during the *fainting fits*; for although ſuch proceeding may ſeem to carry with it the appearance of cruelty;

cruelty; the general relaxation of body which then prevails, will render the uterus more torpid and inactive, and leſs liable to be ſtimulated into motion by the hand of the operator; conſequently, as there will be more ſpace for turning the child, both it and the mother will ſuffer proportionably leſs: Indeed, her loſs of ſtrength will concur in making his aſſiſtance more effectual; the uterus being then, as it were, unbraced and void of contraction: This ſhews the folly and imprudence of thoſe, who are ever teaſing and perſecuting the poor, languiſhing, and half-dead patient, with their impertinent admonitions; "to bear down ſtrongly, and make the beſt of her labor pains."

In ſhort, in all floodings which happen where the *fœtus ſtill remains in utero*; when every other method has failed, and the danger is great; the patient, if poſſible, ſhould be *ſpeedily delivered*; and whenever

a profuſe hæmorrhage happens *after delivery*, and obſtinately continues notwithſtanding the uſe of the remedies already mentioned; it will then become neceſſary to throw up *ſtyptic injections* into the uterus, as the laſt and moſt powerful application that can be tried for her relief.

I have been more particular on this my *New Method of treating Uterine Hæmorrhages* by the action of *cold* externally and internally applied to the human body, being convinced, by *repeated experience*, that from thence, the lives of many women may be ſaved, who would be loſt by being treated in the uſual manner.

I did propoſe to make ſome experiments, in order to aſcertain the different quantities of blood eſcaping from the veſſels of wounded animals, expoſed to different degrees of *heat* and *cold*; but want of opportunity, as well as the cruelty attending ſuch enquiries, have hitherto prevented me.

Beſides

Beſides the hæmorrhages incident to pregnant women, there are two other ſorts which occur more rarely, and not attended with ſo much immediate danger; the firſt may happen to *virgins*, the laſt to women about the diſappearance of the menſes.

According to *Lamotte*, thoſe floodings to which young women are ſubject, ariſe chiefly from *plethora*, and if the uterus is in a ſound ſtate, are generally remedied by bleeding, laxatives, and abſtemious diet. In ſuch caſes, we ſhould be cautious not to injure the patient's reputation from the ſuggeſtion that ſhe is with child, and that ſuch a flux of blood denotes miſcarriage, which ſometimes has inadvertently been done.

The menſtrul flux, which now and then continues in plethoric habits, for the firſt three or four months of pregnancy, and alſo that diſcharge of blood which naturally happens after delivery, from the ſeparation

of the placenta, ſhould be carefully diſtinguiſhed from a real flooding, by thoſe who are unexperienced, or who from want of attention rather than judgment, might chance to fall into miſtakes of this kind.

Women about the age of forty-five or fifty, are ſometimes ſubject to a diſcharge of grumous, fœtid blood, eſpecially thoſe of plethoric habits, who are ſedentary, and indulge themſelves to exceſs in eating and drinking.

Dr. *Amb. Dawſon*, formerly an eminent phyſician of extenſive practice in London, aſſures me, that he has often given *cremor. tart.* in ſuch hæmorrhages with remarkable ſucceſs.

When the female conſtitution continues to generate redundant blood beyond the ſtated time of nature, and where the uterine veſſels, from the effect of age, become rigid and compact too early, ſo as to prevent its paſſing off that way, great inconveniences to health are the conſequences of it,

it, though in general, they may either be relieved or cured by bleeding and evacuations: However, when such complaints are of long continuance, attended with slow fever, a sanious discharge, and painful forcing down of the affected part, they almost certainly denote a diseased uterus, and frequently prove mortal in the conclusion.

As for the *extract. cicutæ*, its effects in such cases have by no means equalled my expectation, considering the extravagant encomiums with which it was ushered into practice. The *vegeto-mineral water* recommended by *Goulard*, may be tried as an injection; and *opiates*, after gentle evacuations, where the pain is violent, may be directed to advantage. I have observed very sensible, and good effects from the use of *Peruvian bark* in the following form, though a perfect cure is not always to be expected.

℞

Cort. Peruv. subtilis. Pulv. ʒ *i*
Cremor. Tart. ʒ *iii*
Pulp. Tamarind. ʒ *ss*

Syr. caryoph. rub. q. s. ut fiat elect. cujus ſumat. quant. nucis moſchat. nocteq. Mane.

Vegetable diet, with nouriſhment of eaſy digeſtion, and moderate exerciſe in pure air, with the chalybeate waters of *Tunbridge* or *Spa*, will likewiſe promote the cure; or at leaſt will tend to abate the ſeverity of the ſymptoms, and prolong the patient's life.

SECTION.

SECTION VI.

Of Convulſions, and Acute Diſeaſes in general, moſt fatal to Women during the State of Pregnancy.

THE cauſe of convulſions is often ſeated in the *brain*, or ſuch parts a have immediate intercourſe with it, by mediation of the nerves, particularly the *ſtomach* and *uterus*. They may alſo ariſe from violent affections of mind, and likewiſe from *plethora*, or *inanition*. There are other more remote cauſes of this diſeaſe, viz. the ſuppreſſion of ſome long-accuſtomed diſcharge, as eruptions repelled from the bodily ſurface; the ſtoppage of bleeding piles; or application of any painful ſtimulus to the nervous parts.

Convulſions are either *idiopathic* or *ſymptomatic*; the firſt are owing to ſome morbid impreſſion originally made on the *brain* or

genus nervoſum, and when derived from the parent, are termed *hereditary* : The laſt ariſe from accidental cauſes which act ſuddenly on the nerves, and with more violence than their natural ſtructure can bear. Thoſe which are hereditary or habitual, and which continue after puberty, are generally incurable, though ſeldom mortal ; and when they totally diſappear about that period ; it ſeems owing to a gradual change produced in the body, by the effect of age, which leſſens its *irritability*, and gives more ſtrength and firmneſs to the whole ſolid ſyſtem.

A remarkable alteration is likewiſe brought about in the female habit, towards the firſt eruption of menſes ; for at this time, convulſions have been known to ceaſe, which before had reſiſted the moſt efficacious remedies.

Hyſterical women, from delicacy of habit, and the great irritability of their nerves, are, of all others, the moſt ſubject

to

to this malady, eſpecially during the latter end of their *firſt pregnancy*. This probably ariſes from the uncommon preſſure of the gravid uterus on the abdominal viſcera, which may obſtruct their veſſels, and prevent the free circulation of blood; or elſe from the vaſt diſtenſion of uterine fibres, which creates pain, and by nervous ſympathy, throws the whole vaſcular ſyſtem into a convulſive ſpaſm. But that this violent and unaccuſtomed ſtreſs laid on the uterus, by the increaſed bulk of the child, is not alone ſufficient to produce the diſeaſe is evident; ſeeing, that gravid women in general are not ſubject to it; and therefore, the *original cauſe* muſt have pre-exiſted in the conſtitution either from ſome former injury done to the *brain*, or a morbid impreſſion derived from the parent, which remains dormant and inactive, until excited into motion by ſuch change as that ariſing from pregnancy.

As the cauſes of convulſions are various, ſo likewiſe is the intention of cure. The veſſels of the body can neither be filled or emptied beyond a certain degree, without occaſioning *plethora* in one caſe, and *inanition* in the other, both which extremes are deſtructive to health, and may occaſion convulſions. In the firſt, they ariſe from painful diſtenſion of the nervous parts; and in the laſt, from a defect of the circulating power, and that equal diſtribution of blood, which is neceſſary to carry on the ſeveral ſecretions.

Convulſions from *inanition*, are much more dangerous than thoſe from *plethora*; as it is eaſier to empty than repleniſh the veſſels; for, although nouriſhment may be taken into the ſtomach; it is a conſiderable time before it can be converted into blood, eſpecially where the aſſimilating powers of the body have been much impaired.

When this diſeaſe comes on after profuſe floodings, or other immoderate evacuations,

it

it is *generally mortal*; and it may be obſerved that ſlaughtered animals, having loſt a certain quantity of blood, fall into convulſions a ſhort time before death. *Van Swieten* ſuppoſes, that this is owing to the uniform preſſure of the blood veſſels being ſuddenly taken off from the *brain*; but more probably, it happens becauſe that equilibrium or balance is deſtroyed, which ought to ſubſiſt between the ſolids and fluids; and therefore as ſoon as the quantity and impulſe of blood on its containing veſſels become deficient; the vaſcular ſyſtem, for want of due reſiſtance, begins to exert a kind of preternatural contractive power, and the whole bodily frame is agitated or convulſed.

But notwithſtanding what has been ſaid; the above author relates the following extraordinary caſe, where the patient recovered.* *Novi gravidam, quæ placidiſſime dormiverat, dum in vicinia periculoſum erat incendium: Sollicita mater, mane accurrens, gratulabatur filiæ, quod blandus ſomnus omnem timorem arcuiſſet. Mox*

* *Van Swieten*, Comment. Vol. iv. p. 497.

Mox incipit tremere miſera toto corpore, & angi, ſimulque totus lectus jam inundabatur ſanguine, ſequente animi deliquio, & convulſionibus ; tamen a periculoſa hac Uteri Hæmorrhagia convaluit, ſed fœtum quadrimeſtrem abortiens perdidit.

Medicines, in ſuch caſes, are in a manner out of the queſtion ; for nothing will ſo effectually reſtore ſtrength, as the repeated uſe of nouriſhing fluids, in ſmall quantities : Broth clyſters may alſo be adminiſtered ; and if the pulſe ſhould remain very weak and languid ; a decoction of *Peruvian bark* may be given, with warm nervous cordials, joined with an *opiate*, ſuch as the *confect. paulin. &c.* Where the ſymptoms are urgent, and the circulation almoſt at a ſtand ; *bliſters* may be applied to inſide of the arms, and ſinapiſms to the ſoles of the feet ; the extremities may alſo be rubbed with hot flannels, or immerſed in *warm water*, the effect of which, has already been conſidered.

When

When convulsions arise from *plethora*, which chiefly happens to such as are young, who indulge their appetite, and have a strong digestion; the pulse is generally hard, full, and frequent, which will require the immediate and repeated loss of blood, with the use of laxative medicines and plentiful dilution. The *saline draughts* with *nitre* may be given, and the patient should be enjoined to use light and abstemious diet, for fear of a relapse.

When she is comatose during the intervals, and her head affected, the eyes being prominent and blood-shot, attended with delirium, or much fever; the use of *opiates* are improper: In short, they ought not to be given, except in cases of great urgency from pain or want of sleep, and even then, only after bleeding and evacuations.

It is of the utmost consequence to distinguish the true cause of convulsions, before any medicines are prescribed, or methods tried for the patient's relief; as an error of judgment

judgment might here prove of fatal conſequence: For inſtance, copious bleeding which would relieve or cure convulſions ariſing from *plenitude*, would inſtantly deſtroy the patient, if they were brought on by *inanition*; and *emetics*, which would be proper when the ſtomach was loaded with bile or other noxious humors, would be highly pernicious, where they were occaſioned by ardent fever, or *inflammation of the brain.*

Thoſe of ſtrong, robuſt conſtitutions, are ſeldom ſubject to convulſions, except from violent cauſes; on the contrary, children, and women of delicate habits, are ſometimes affected by the ſlighteſt impreſſions on the body or mind; and it is remarkable, that what produces very extraordinary and alarming ſymptoms in one, will not at all endanger another; each feeling the effects of different cauſes, according to their natural temperament, and as their nerves are ſtrung to different ſenſations. But although women and children are more ſubject to this

diſeaſe

diſeaſe than men, in proportion as their habit is weak and irritable, it is obſerved that they eſcape the danger of it much better.

Convulſions ſupervening violent fevers, or inflammation of the brain, are often mortal; but thoſe which are followed by fever, critical eruptions on the body, or a diſcharge of putrid bile from the ſtomach or inteſtines, generally end more favorably. If they are of the hyſterical kind, unattended by *coma*, *delirium* or *fever*, and attack the patient, by long intervals, ſo as to become habitual, they do not denote immediate danger; but ſometimes occaſion palſy, loſs of memory, or idiotiſm, by gradually impairing the vital functions.

When this diſeaſe is ſuddenly produced by *terror*; *bleeding*, the liberal uſe of *opiates*, and *warm bath*, by diſſolving the ſpaſm and ſoothing the nerves, will beſt anſwer the intention of cure.

I attended a lady in the year 1770, who was repeatedly attacked with convulsions during pregnancy, which were first owing to a fright, and to which she had been subject many years; being treated in the manner just mentioned, she went on the full time of her pregnancy, and being happily delivered, recovered without any relapse.

Some authors recommend bleeding in the foot, when the head is affected; but the doctrine of *derivation* and *revulsion*, as applied to bleeding, is not less inconsistent and irrational, than in what it relates to the *pediluvium* or warm bath for the feet. Opening a vein in the foot, has been said to bring on the menses; when blood drawn from the arm, had no such effect; and this was supposed to happen in consequence of its accelerating the blood's motion through the vessels of the legs and *uterus*, which indeed is a downright contradiction; for when a vein is opened in any part, the motion of blood through it, *pro tempore*, will

rather

rather be retarded than increaſed; as it is evident that the *bleeding orifice* cannot poſſibly tranſmit ſo much blood as the trunk of the vein, before its compreſſion by the ligature. Admitting this as a fact, it will follow, that if menſes have been ſuddenly brought on by bleeding in the foot, the effect was produced in a manner directly contrary to what has generally been imagined, viz. from compreſſion of the veins and arteries by the *ligature* applied, and to *immerſion* of the feet in hot water, both which, as already remarked, increaſe the quantity and velocity of blood paſſing through the *uterus**.

Errors in diet, or food taken into the ſtomach which offends in quantity and quality, have been known to occaſion convulſions; but theſe are ſeldom dangerous, and generally ceaſe, as ſoon as the offending matter

* Page 258, et ſeq.

matter is evacuated, by giving an *emetic* and laxatives; after which an opiate will be proper.

Retention of Urine, by diſtending the bladder and creating violent pain, may likewiſe be productive of convulſions, eſpecially in weak, irritable habits; but here, as in the former caſe, they ſoon go off, after it has been emptied by the *catheter*; otherwiſe, a warm bath ſhould be directed, with emulſions and anodyne clyſters.

When the neck of the urinary bladder is compreſſed by the child's head, it may be gently raiſed above the ſymphyſis of the pubes: A caſe of this kind, is mentioned in *Lamotte*'s obſervations, where, from ſuch aſſiſtance only, a large quantity of urine was inſtantly diſcharged.

A patient at the *Weſtminſter Lying-In Hoſpital*, about two years ago, in the time of labor, complained of exceſſive pain at the pubes, which ſhe was not able to endure without

without crying aloud: She was ſeized with ſubſultus tendinum, which occaſioned the Matron to ſend for me: I found the bladder diſtended with water, and raiſed above the brim of the pelvis, ſo that during her labor pains it was violently compreſſed between the uterus and bones, even to the danger of burſting; I directed the water immediately to be drawn off by the *catheter*, after which ſhe became eaſy, and was delivered ſoon after.

Another caſe of the like kind happened at the *Hoſpital* lately; where the bladder, by its hardneſs and projection over the pubes in the time of labor, was at firſt miſtaken for the child's head: This patient was treated in the ſame manner as the former, and alſo recovered.

Where *cutaneous eruptions* are ſuddenly thrown back into the habit; the *warm bath*, and gentle *diaphoretics* with nitre, will bid fair to relieve the patient: but ſhould her complaints ariſe from *worms*; anthelmin-

tic medicines may be given, in which, *Plenck's* preparation of mercury, with gum arabic, is both efficacious and ſafe, if adminiſtered with due caution. The *Indian Pink Root*; the bark of the wild cabbage or *bulge water tree* of Jamaica; and the *couhage*, the pods of which are lined with the *ſiliqua hirſuta* of *Linnæus*, have all lately been recommended as powerful medicines for this purpoſe; but I cannot ſay much of them from my own experience, except the *Indian Pink Root*, an infuſion of which, is both elegant and efficacious.

In ſtrong *convulſions* during pregnancy, ſpeedy delivery has been propoſed, and recurred to as the principal remedy: but obſervation and experience ſhew, that this rule will admit of many exceptions, and ought to be regarded with great caution; eſpecially by thoſe who are young in practice, and therefore influenced by fear, which naturally ſuggeſts the worſt; in conſequence of which, they are often prompted

to

to proceed with more haſte and violence than is conſiſtent with the patient's ſafety.

It has already been remarked, that ſimple preſſure of the *gravid uterus* on the contiguous viſcera may interrupt the natural functions of thoſe parts, and occaſion convulſions; and to ſuch caſes, may be added thoſe where that part is defective in its organical ſtructure; and being either too ſmall, or preternaturally firm and compact, cannot yield ſufficiently to the increaſed bulk of the child, without being violently diſtended and overſtrained; or elſe by an unfavorable poſition of the fœtus, it may be compreſſed and bruiſed between the angular parts of its body and bones of the pelvis, ſo as to excite pain, and bring on convulſions; eſpecially, as the habit is at this time uncommonly irritable. Under ſuch circumſtances ſpeedy delivery, if the patient is at, or near her full time, may procure her inſtant relief; but on the contrary, whenever they ariſe from any cauſe

independent of the ſtate of pregnancy; experience, as well as reaſon, evidently ſhew, that delivery thus violently brought about, contrary to the common courſe of nature, would not only prove ineffectual, but highly dangerous.

Hoffman ſuppoſes that the *duodenum* is often the ſeat of convulſions, becauſe of the diſcharge of bile and pancreatic juice, into the cavity of that inteſtine; which from various cauſes are wont to become putrid and highly acrimonious; conſequently, they may produce great pain and tumult in the body, if not ſoon evacuated by gentle cathartics.

The retention of theſe *acrimonious ſalts* and *rancid oils* which naturally ought to paſs off by the kidnies, may likewiſe occaſion this malady; as it has ſometimes been obſerved to ſucceed a flux of pale, limpid urine, eſpecially in fevers: In ſuch caſes, ſmall portions of *emetic tartar*, with the ſaline draughts, or other ſaponaceous fluids have been found to procure relief.

Beſides

Beſides the ſeveral cauſes of convulſive diſorders already enumerated, there may be others, ſo latent and difficult to be found out, as to remain imperceptible to the niceſt obſerver; which nevertheleſs act with great violence on the ſenſible and irritable parts of human bodies. In ſuch doubtful caſes, or where the patient is ſenſeleſs and can give no information; the indication of cure muſt be taken from the general methods of treating the diſeaſe, and the precipitate adminiſtration of powerful medicines ought to be avoided; for he that is afraid of miſtaking his way, ſhould rather abate than redouble his ſpeed. If the patient is unable to ſwallow, which frequently happens, ſhe ſhould not be neglected on that account; ſince *opium*, *muſk*, or other medicines may be advantageouſly given in clyſters.

Women who have been ſubject to the diſeaſe, in former pregnancy, ſhould uſe every poſſible caution to avoid it; by

bleeding, the uſe of *opiates*, or ſuch other medicines or methods, as ſeem beſt appropriated to the nature of their conſtitution, before the approach of labor.

The violence, and long duration of convulſions, ſometimes leave a *morbid impreſſion* on the brain or nerves, by which the intellectual faculties are much impaired. In ſuch caſes, bliſters, preparations of *bark*, with aromatic bitters, or the warm fœtid gums, have been found ſerviceable; alſo chalybeate waters; the cold bath, and moderate exerciſe, in a dry, pure air.

℞

Pulv. ſubtilliſſ. Cort. Peruv. ʒ *i*
——*radic. Valerian. Sylv.* ʒ *iij*
Chalyb. rubig. preparat.
Spec. Aromat. aa ʒ *i*

Syr. Caryoph. rub. q. ſ. ut fiat Elect. cujus ſumat quant. Nucis moſchat. bis terve in die, ſuperbibend. Cyath. Aq. Pyrmont. vel Spadan.

All

All animal and vegetable ſubſtances, which are uſually directed in ſpaſmodic complaints, act by their powerful effluvia, and in a certain degree ſeem to produce a narcotic effect; among the firſt are muſk, and caſtor; and of the laſt are gum aſſafœtid. ſagap. camphor, valerian, &c. but *opium*, where-ever it can be properly given, is the ſovereign medicine, and ſuperior to all the reſt.

Here it is neceſſary to caution young practitioners, who are generally *enthuſiaſts* in phyſic, not to imagine that the names of medicines, or the claſs to which they belong, either ſufficiently denote their true qualities or point out their real uſe: They ought not therefore, to depend upon them too much, however dignified with the appellation of *antiſpaſmodics*, *ſpecifics*, &c. many of them have not even power enough to do harm; which indeed is ſaying ſomething in their favor; ſince thoſe which are good, are often abuſed, and then become the worſt of all.

The means of making remedies salutary, consist in distinguishing properly how they are to be applied: Thus administered, there is much which they will do, but much more which it is impossible they should do, from the very nature of things; and which therefore, it would be unphilosophical as well as unreasonable to expect.

I was favored with the following case by Mr. *M——n*, the gentleman who attended and delivered the patient; and have set it down, as near as possible, in his own words.

CASE I.

Mrs. *D——an*, of *Swallow-street*, aged thirty, at her full time, and with her first child, was seized on the 24th of *January*, 1764, with violent and universal convulsions, in the beginning of labor, whilst her pains were moderate, attended with

with total deprivation of her ſenſes: Being of a plethoric habit, twelve or fourteen ounces of blood were immediately taken from the arm; a bliſter was applied to the back, and the uſual antiſpaſmodic medicines adminiſtered, but without any ſenſible benefit; the convulſions increaſed in frequency and violence; recurring every five or ſix minutes, without any intervals of reſpite: At the acceſſion of every fit, the child's head was preſſed down on the *os uteri*, as if a labor pain had been coming on; it then grew rigid, and the agitation of the whole body was ſo violent, that there was no poſſibility of obtaining any farther information from the touch: In the mean time the arm, from ſtruggling, bled to the quantity of ten or twelve ounces more, but no faintings enſued. In this manner, when about eight hours had elapſed, and no ſymptoms of amendment appeared; it was propoſed to bring the child away by inſtruments, and for the ſatisfaction of her friends

and

and the preſervation of the attendant's character, to requeſt Dr. *Leake's* advice; and that he would be preſent during the operation; but as his reſidence was diſtant, and the firſt meſſenger had miſtaken the ſtreet, upwards of an hour was loſt, before he was appriſed of it; and in the mean time, the *convulſions* increaſed to ſuch a degree, that her death was every moment expected. In the intervals, which were now very ſhort, no pulſe was to be felt, nor could ſhe be perceived to breathe: Her attendant therefore thinking that farther delay might be fatal, reſolved not to wait any longer, but proceed to the operation. During the receſs of the convulſions, he could perceive the os uteri was dilated to a conſiderable extent, and the head advanced below the brim of the pelvis: After repeated trials with the *ſhort forceps*, finding he could not ſucceed, on account of the height and largeneſs of the head, and the inſufficient dilation of the os uteri; he introduced

introduced the *ſciſſars*, perforated the ſcull, and after evacuating its contents, extracted the bones of the head ; and then delivered her without much difficulty. Juſt as the operation was finiſhed, Dr. *Leake* arrived, and ſeeing the ſtate of the patient, confirmed the unfavorable prognoſtic which her attendant had before made : However, thinking it better to try the effect of doubtful remedies than none, he preſcribed for her as follows.

℞.

Pulv. e Myrrh. c. ℈*j*

Moſch.

Sal. Succin. aa ℈*ſs*

Syr. e Cort. Aurant. q. ſ. ut fiat Bolus 4*ta quaq. hora ſumend. cum Cyath. Julep. ſequent.*

℞.

Julep. e Camphor. ℥ *viij*

Spt. Volat. fœtid. ʒ *ij miſce.*

Sinapiſms were alſo directed to be applied to the ſoles of the feet.

On

On the third day from her delivery, ſhe began gradually to return to her ſenſes, as if waking out of a dream; but had not the leaſt recollection of any thing that had happened, or of any pain ſhe felt ſince the time her *Accoucheur* firſt entered the room. In a fortnight ſhe perfectly recovered, and ſince that time has had ſeveral children.

CASE II.

Auguſt the 6th, 1765, I was ſent for to ſee a gentlewoman at *Camberwell*, who was convulſed; ſhe was big with the firſt child, and at the full expiration of her reckoning; her midwife was with her, and informed me ſhe had no labor-pains, the *os uteri* not being at all dilated. She was apparently of a ſtrong habit of body, and had been remarkably healthy during the latter end of pregnancy: The fits, two in number, which had been violent, were gone off before I ſaw her: Her pulſe was good, and ſhe was perfectly ſenſible, but could give no man-

ner

ner of reaſon for her complaint: I ordered twelve ounces of blood to be drawn, and a cathartic clyſter to be adminiſtered; after which, ſhe took a bolus, with *muſk* and *opium*, and waſhed it down with the ſaline mixture. When I ſaw her next day, in the afternoon, ſhe ſeemed in a manner quite recovered; but had only taken her medicines once. She was delivered two days after, and did well.

CASE III.

October the 28th, 1769, late at night, I was deſired ro viſit Mrs. *A—d—n*, in *Cavendiſh-Square*, who was ſuddenly attacked with convulſions, the third day after delivery, without any apparent cauſe: She was naturally of a very chearful, volatile diſpoſition, but ſubject to a *nervous tremor* on the ſlighteſt occaſion. The convulſive ſpaſms were gone off before I got there; but her voice was tremulous and indiſtinct, her eyes wild and ſtaring, and her intellect very imperfect;

perfect; she swallowed with great difficulty, and her face was much altered from its former appearance: Her pulse was frequent, weak, and unequal; sometimes vibrating with uncommon velocity, and then suddenly intermitting, and becoming almost imperceptible, for the space of one or two pulsations. Her friends did not know she had been disturbed, nor could I find by the nurse, that any thing had been given to eat or drink which disagreed with her; but as I had attended her before, and found that *opiates* generally relieved her, I prescribed the following medicines.

℞

Pil. e Styrace gr. vj

Pulv. Castor. r. ℈ *ss*

Balsam. Peruv. q. s. ut fiat bolus minim. pro re nata exhibend. cum cochlear. duobus Julepi sequentis.

℞. *Julep. e Camphor.* ℥ *v*

Aq. Puleg simp. ℥ *iij*

Spt. Volat. fœtid. ℥ *ij fiat Julepum.*

Before

Before ſeven in the evening, ſhe had taken two boluſes, and having had ſome refreſhing ſleep, waked ſenſible and ſeemed better; when I ſaw her at that time, her pulſe was more full and ſtrong; and as there appeared no ſigns of relapſe, the application of a bliſter was omitted, to which ſhe ſeemed much averſe: I deſired that three ſpoonful of the *julep* might now be given occaſionally, without the bolus; except ſhe was threatened with convulſions.

Next morning ſhe was ſtill better, having paſſed a good night: In the evening ſhe complained of pain at her ſtomach, but was free from feveriſh ſymptoms, and perſpired gently. The *emplaſt. ſtomachic.* was directed to the pit of her ſtomach; her feet were wrapped in hot flannels, and the uſe of the julep was omitted. She now continued recovering every day, but towards the end of the month, being ſubject to night ſweats; ſhe took a decoction of the *cortex*, with *elix. vitriol. dulc.* which reſtored her to perfect health.

CASE

CASE IV.

Sarah Silby, of a ſtrong athletic habit, was delivered in the *Weſtminſter Lying-In Hoſpital* the 26th of Auguſt, 1771. The labor was natural, and the placenta came away with eaſe about an hour after delivery, as I was informed by the gentleman who at that time attended the hoſpital; ſhe appeared well as could be expected till nine in the evening, when ſhe complained of great ſickneſs and oppreſſion at her ſtomach, and vomitted a large quantity of *poraceous bile*: As the ſickneſs did not entirely go off, a grain of *emetic tartar* was directed to cleanſe her ſtomach more thoroughly; but it did not produce any ſenſible effect. About midnight, ſhe was attacked with violent *convulſions*, which laſted till eleven o'clock the next day; during which time ſhe had ten or eleven fits, and twice or thrice threw up phlegm, mixed with clots of blood; but as ſhe was ſenſeleſs and the

comatoſe in the intervals, it was not poſſible to adminiſter any kind of medicine.

The 27th in the morning, her pulſe was hard and oppreſſed, her ſkin hot and dry, and overſpread with a deep yellow, as if ſhe had been ill with the *jaundice*. The tongue was foul, and had been wounded by her teeth in the convulſive paroxyſms; ſo that it appeared, the blood which ſhe had diſcharged, did not proceed from her ſtomach, but only from her mouth: The abdomen was tenſe and ſwelled, and ſhe breathed with much difficulty. Ten ounces of blood were immediately taken from the arm, and a *cathartic clyſter* was afterwards adminiſtered. In the evening ſhe was better; the clyſter had procured her three ſtools, and leſſened the hardneſs and ſwelling of her belly.

I then directed one of the following powders, to be taken every four hours, and an anodyne draught to be given the laſt thing at night.

℞.

Tart. emet. gr. iſs

Magnes. alb. ʒ *iſs contere & f. pulv. in ſex portiones dividendus.*

℞.

Aq. Puleg. ʒ *iſs*

Spt. Volat. fætid. ʒ *ij*

Tinct. Thebaic. gtt. xxx

Syr. e Cort. Aurant. ʒ *j miſce & fiat hauſtus.*

The 28th in the morning, ſhe was ſenſible and much relieved, her pulſe was more ſoft and equal; the powders had brought on a free perſpiration, and the ſuffuſion of bile on her ſkin was leſs perceptible; The opiate had alſo procured her ſome refreſhing ſleep, but as I obſerved her head was diſordered, and affected with *ſtupor*, *leeches* were directed to be applied to her temples in the evening.

29th. Better in all reſpects, and perfectly ſenſible, but complained of the ſoreneſs of her tongue, which was waſhed with ſage-tea and honey: In the evening, ſhe was feveriſh,

and

and had muſcular pains in different parts of her body, but remained perfectly ſenſible. The antimonial powders were continued.

30th. The preceding night's reſt, and a free perſpiration, had remedied her yeſterday's complaints: Nothing was now given but nouriſhing food of eaſy digeſtion, by which, her ſtrength ſenſibly increaſed, and in a few days ſhe perfectly recovered.

CASE V.

That part of the following caſe, which relates to the different circumſtances of labor, I took from the minutes of one of my *Pupils*, who then attended in rotation and delivered the patient; the reſt is ſet down according to the beſt of my recollection.

Ann Philips, on *Thurſday* morning, the 27th of *February*, 1772, about two o'clock, was brought into the *Hoſpital*, with ſymptoms of approaching labor; the waters

were diſcharged the preceding evening, but her pains were inconſiderable; at laſt they became ſtronger, and returing by ſhorter intervals, brought the head below the brim of the pelvis, which was narrow; about three o'clock in the afternoon, her pains were ſtill more frequent, but of ſhorter duration; notwithſtanding, the head made ſome ſmall advances, and continued to do ſo until about eight o'clock, when it was totally diſengaged from the uterus, and the birth was expected at every pain. Her pulſe was now ſtrong, full and frequent, as it had continued during the day; when, after changing the ſituation of her body, which was unfavorable, ſhe ſeemed rather fatigued, and was ſuddenly ſeized with *convulſive ſpaſms* in both legs, which quickly increaſed, and ſoon affected her whole body; Her pulſe, during the fit, was ſmall and very quick; ſhe had ſeemingly great anxiety and oppreſſion about the *præcordia*, and the urine was diſcharged inſenſibly; The ſpaſm

continued

continued about ten minutes, when she was apparently quite recovered; her pulse also grew stronger, but her pains were manifestly interrupted, and much weaker. The convulsions returned by intervals of near an hour, and were of long duration, 'till about twelve o'clock, when she was delivered. She was afterwards much better, but her fits again returned in half an hour with greater violence than ever; her intellect, during the intervals, being also very imperfect.

Eight ounces of blood were taken away, and the following bolus directed to be given immediately after, and repeated as occasion should require:

℞.

Extract. Thebaic. gr. iſs

Moſch. ℈*ſs*

Confect. Alkerm. q. ſ. ut fiat bolus

She was strongly convulsed in the night several times, and by seven o'clock in the morning, had thirteen fits from the first

attack; about nine she was better, but complained of much pain in her head, and soreness all over her body.

An emollient clyster was administered, and her temples were bathed with warm vinegar, the fumes of which, she also drew up her nose: Her head being affected, the *opiate* was omitted, but about nine at night, it was repeated, lest there should be a return of the convulsions. The next morning she was much better in all respects; had sound, refreshing sleep in the night, and perspired freely. From this time the symptoms of weakness gradually went off, and in a few days she perfectly recovered.

CASE VI.

I was favoured with the particulars of the following case, by Mr. *H——t*, an *apothecary* in town, who practises midwifery, and at whose request I was sent for, at the time the patient was seized with convulsions.

Mrs.

Mrs. *H*——, the wife of a tradeſman in *James-ſtreet, Covent Garden* ; about thirty years of age, of a robuſt, plethoric habit, and perfectly healthy ; being pregnant with her firſt child, was ſeized with *convulſions* at the expiration of her full time, and during labor, viz. the 10th of *March*, 1772 : Her pulſe was full, and her pains ſeemed natural, but ſo moderate, that ſhe was not at firſt examined by the touch : In leſs than an hour, ſhe was taken with retching without any apparent cauſe, and complained of pain at her ſtomach : A little warm caudle was given her, which was inſtantly thrown up ; the pain at her ſtomach became violent and the vomitting increaſed ; about half an hour after, ſhe was ſeized with *ſtrong convulſions*, which ceaſed by intervals ; ſhe vomitted with great violence, and ſeveral times threw up a large quantity of ſlimy fluid, mixed with blood.

During this time, there were no ſigns of labor, the *os uteri* being rigid and quite

cloſed: Every paroxyſm was ſucceeded by a ſeeming profound ſleep, attended with ſnoring, or rather ſnorting, with a diſcharge of foam from her mouth, mixed with blood. She was in this ſituation when I firſt ſaw her. Twelve ounces of blood were immediately taken away, a *bliſtering plaſter* was applied to the nape of her neck, and *ſinapiſms* to the ſoles of her feet: I preſcribed a bolus with *muſk* and *opium*, which being diſſolved, was ſwallowed with ſome difficulty. She continued ſpeechleſs and inſenſible, as ſhe had been from the firſt attack, but the convulſions left her, and the labor pains grew ſtronger; the *os uteri* then dilated, and the child advanced at every pain, inſomuch that the birth was ſpeedily expected: On a ſudden, the pulſe ſunk, and her ſtrength being perceived to leſſen every moment; the child which was dead, was extracted by the *forceps*, and in about three hours after ſhe expired.

I could not perceive that the tongue was wounded, as it frequently is in ſuch caſes; and therefore ſuppoſed that the blood diſcharged from her mouth, proceeded from a ruptured veſſel in the ſtomach; otherwiſe an *emetic* would have been proper, ſince the vaſt quantity of glairy, *gaſtric fluid* thrown up, denoted ſomething amiſs in that part; which, like the urinary bladder, when irritated by a ſtone, or the inteſtines, when any painful ſtimulus is applied, ſeparate the ſame kind of mucus in great abundance.

CASE VII.

Auguſt the 12th, 1772, at ſeven o'clock in the morning, I was deſired, as ſoon as poſſible, to viſit a gentlewoman at *Lambeth*, who was ſeized with convulſions, and ſuppoſed to be in labor. Her firſt midwife ſeeing the ſtate ſhe was in, and fearing, I ſuppoſe, ſhe would die, pretended buſineſs elſewhere, and left her. The midwife

who

who was afterwards ſent for, being preſent, informed me her pains were inconſiderable, and that the *os uteri* was very little dilated. Her nails were black, and her arms had repeatedly been drawn up with great violence towards her body, as if affected with the *cramp*. She complained of intolerable pain in her bowels, and was much oppreſſed with wind at her ſtomach, which was tenſe and ſwelled; her pulſe was frequent and irregular; and I was told ſhe had long labored under great anxiety of mind and dejection of ſpirits, as well as bodily pain. Her extremities were ordered to be gently rubbed with warm cloths, and afterwards to be wrapped in hot flannels. I directed the following draught, and alſo an emollient clyſter to be adminiſtered:

℞

Conſect. cardiac. ʒ ſs

Aq. Menth. pip. ſimp. ʒ iſs

Nucis Moſchat. ʒ iij

Tinct. Thebaic. gtt. xx

Syr.

Syr. e Mecon. ʒj *fiat hauſtus anodyn. quamprimum exhibendus.*

As ſhe continued in great pain, and ſome ſymptoms of *convulſive ſpaſms* appearing in the evening; ſeven ounces of blood were taken away, and the anodyne draught was repeated: She diſcharged large quantities of wind from her ſtomach, and was ſo much relieved from pain, that ſhe fell into a profound ſleep, and was much better in all reſpects the next morning; after which her labor pains came on, and being happily delivered about one o'clock the ſame day, ſhe ſoon perfectly recovered.

Dr. *Gaubius*, in his *Adverſaria*, mentions the internal uſe of the flowers of *zinc*, and informs us that he directed them with ſucceſs in the cure of *convulſive and ſpaſmodic diſeaſes*; but ſuch is the almoſt infinite variety of cauſes from whence convulſions may proceed, that what will relieve or totally remove them in one, will not be found in the leaſt beneficial to another; and I think

think it ſtill remains for further experience to determine, whether their medicinal effects in ſuch caſes, are to be depended upon or not. Six grains of the flowers of *zinc* may be mixed with a dram of fine ſugar, and being divided into ſix parts, one of them may be given thrice a-day, or oftener, as occaſion requires.

NEXT to Uterine Hæmorrhages and Convulſions; the *Pleuriſy*, *Dyſentery* and *Small-Pox*, deſerve attention, as diſeaſes of a very deſtructive nature to women during pregnancy: But as they have been fully and judiciouſly conſidered by authors of the greateſt eminence; I ſhall only take a curſory view of them, in order to ſhew how much their dangerous tendency is then increaſed; as well as to point out that peculiarity of treatment, which they at this time require.

As

As a firm and compact ſtate of the ſolids are obſerved to produce *acute diſeaſes*; ſo lax fibres and a delicate habit diſpoſe the body to thoſe of the *chronic kind*. Women, therefore, are found to be much leſs ſubject to *pleuriſy* than men; and thoſe who have a bad digeſtion and phlegmatic conſtitution, are ſeldom affected with it at all; according to that aphoriſm of *Hippocrates*: *Qui acidum eructant, raro pleuritici fiunt.*

Although ſtrong maſculine women who uſe hard exerciſe, and where the menſes have been deficient, are much oftener viſited with it than others; I have ſeen two or three inſtances, where thoſe of a very contrary kind were alſo violently affected*. The production of the diſeaſe, and its ſymptoms, may therefore, probably ſometimes ariſe from a defect of the *vis vitæ*, as well as from exceſs of it; for inſtance, when the quantity of animal fluids is much leſſened, in valetudinary, exhauſted women, ſo is their

* Vide *Child-bed Fever*, page 223.

their ſtrength likewiſe ; and conſequently, four ounces of blood, which ſhall accidently become redundant, will render ſuch women as *plethoric*, and over-load their veſſels as much at one time, as double the quantity would have done at another, when they were ſtronger.

In the beginning of the diſeaſe, the pulſe is commonly hard, full, and ſtrong; but when the pain in the ſides becomes acute and reſpiration very difficult, it then loſes its firmneſs, and grows more ſoft and weak; and as the blood cannot now paſs through the lungs, they will begin to participate of the inflammation ; and the *pleuriſy* will then be complicated with the *peripneumony*.

Without this diſtinction, and particular regard to alteration of the pulſe ; *bleeding* would often be omitted, as improper, even when moſt conducive to the patient's ſafety, by preventing a *mortal ſuffocation* ; for ſhe is often cut off by the difficulty of breathing, and the conſequent obſtruction of blood in

the

the lungs, before the inflammation has brought on any collection of *matter* in the thorax. The indication of cure, is therefore, rather to be taken from *respiration*, than the state of the pulse, which manifestly depends upon the former.

Servius who opened a great number of those who died of the *pleurisy* at *Rome*, always found one lobe of the lungs corrupted, but the *pleura* was either slightly affected, or altogether untouched by the inflammation.

In most acute fevers of the inflammatory kind; scarcely any thing is required, besides well-timed evacuations, with plentiful dilution; and therefore, *bleeding*, *gentle laxatives*, *and the saline mixture with nitre*, will here be proper; especially, when the skin is dry, and the pulse hard and full.

When the patient is much relieved in the beginning, by profuse perspiration, and the pulse becomes more soft and free; or

where

where ſhe is benefited by expectoration in the progreſs of the diſeaſe; bleeding does not ſeem neceſſary, but it may be advantageouſly directed at all times, whenever a dangerous difficulty of breathing ſuddenly comes on: Under theſe circumſtances, it is ſafe and requiſite in women with child as others; and even more ſo, in thoſe who are young, and naturally of a plethoric habit of body, and who are not advanced beyond the *fourth month of pregnancy*; for the *embryo* being then ſmall, and not requiring the whole quantity of redundant blood; nature often finds means to carry it off by the *vagina*, leſt it ſhould overfill the veſſels, and injure the conſtitution.

Where expectoration is ſuppreſſed, and difficulty of breathing comes on; *Baglivi* recommends the application of bliſters to the inſide of the legs, and alſo mentions the remarkable good effects of warm, diluting fluids, taken often and in ſmall quantities.

For

For this purpoſe, nothing can be better calculated than the *decoct. pector.* with nitre; and if the ſteam of warm water is frequently drawn into the lungs with the breath, it will be found beneficial.

Where the pain is extremely acute during reſpiration; ſwathing or binding the thorax with a broad circular bandage, will often procure great relief, by preventing the elevation of the ſternum, and diſtenſion of the affected parts; for then, breathing is principally carried on by a greater depreſſion of the diaphragm, at each inſpiration; but this would be highly improper in *gravid women*, where the whole abdominal cavity being taken up by the *inlarged uterus*, the motion of the lungs would, in a manner, be ſuppreſſed, and the patient ſuffocated. *Emetics*, for the ſame reaſon, ſhould be omitted, or given with the greateſt caution; eſpecially in full habits, before bleeding, or where ſigns of *delirium* appear.

To promote expectoration, either of the following medicines may be directed, according to the degree of inflammation, and nature of the ſymptoms:

℞.

Ol. Lini per expreſs. ʒ *iij*

Spt. Sal. ammoniac. gtt. xx

Aq. Puleg. ſimp. ʒ *iſs*

Oxymel. Scillit. ʒ *j fiat hauſtus* 5*ta quaq. hora ſumendus.*

℞.

Sal. Abſinth. ℈ *i*

Succ. Limon. ʒ *ſs*

Sperm. Ceti ſolut. ʒ *ſs*

Aq. Hyſſop. ʒ *x*

Syr. balſamic ʒ *i fiat hauſtus.*

The application of a *bliſtering plaſter* to the affected part ſeems moſt rational after bleeding, &c. but where-ever the pain is fixed, and ſo acute, as to occaſion much difficulty of breathing in the beginning; it may then be directed with great ſafety and advantage, as I have obſerved ſeveral times.

times. In ſhort, the treatment of this diſeaſe in *pregnant women*, with ſome exceptions, is nearly the ſame as in thoſe who are not ſo, although the event is much more dangerous; according to *Hippocrates*, viz. *Mulierem in utero gerentem, ab acuto aliquo morbo corripi, lethale.*

Mrs. *M-y-les* of *Weſtminſter*, aged thirty-two, and of a weakly conſtitution; in the fourth month of her pregnancy, was ſeized with an *acute, inflammatory fever*, ſuppoſed to have been communicated by her huſband, who was then recovering from a dangerous illneſs of the like kind, which had confined him to his room three weeks. I was deſired to viſit her the 21ſt of *July*, 1772; her pulſe was frequent and ſomewhat full, her tongue foul, and thirſt immoderate; ſhe complained of head-ach, which had continued violent from the beginning, and prevented her having reſt. Being ill near a week before I ſaw her, ſome medi-

cines had been given, and a bliſter applied: As I was informed there were ſigns of intermiſſion towards morning, I directed the following draught:

℞.

Sal. Abſinth. ℈ *i*

Succ. Limon. ℥ *ſs miſce & affund.*

Decoct. Peruv. Cort. ℥ *i*

Aq. Cinn. ſimp. ℥ *iij fiat hauſtus 4ta quaq. hora exhibendus.*

Her complaints continued without much alteration the two following days; but on the twenty-fourth her pulſe was hard, the hands tremulous, and her eyes appeared bright and inflamed; ſhe was delirious by turns, and raved much in the night, which ſhe paſſed without ſleep. Eight ounces of blood were taken from the arm, and an emollient clyſter was adminiſtered; ſhe afterwards took one of the following powders, which was ordered to be repeated in three hours, if the firſt produced no ſenſible effects.

℞. *Tart.*

℞.

Tart. emet. gr. ij

Magnes. alb. ʒſs contere & fiat Pulv. in ſex partes dividend.

The 25th, the febrile ſymptoms ſeemed to abate, and ſhe was ſomething better, having had refreſhing ſleep ſoon after bleeding, the preceding day: The powder firſt given proved gently emetic, and afterwards produced moiſture on the ſkin; her pulſe being ſofter; the draught, which was firſt preſcribed, was again repeated every four or five hours.

On the 27th, ſhe was ſtill more cool and free from fever, but extremely weak and languid; and as the urine depoſited copious ſediment, I preſcribed the following draught, and deſired that weak broth, and light nouriſhment might be given as often as her ſtomach would bear.

℞.

Infus. Peruv. Cort. Fortiſs. Conſect. ℥ *iſs*
Extract. ejuſd. moll. ℈ *i*
Spt. Lavend. c. ℥*j*
Confect. Alkerm. ℥*i fiat hauſtus 4ta quaq. hora exhibendus.*

She continued this medicine upwards of a week, and gradually gaining ſtrength every day, at laſt perfectly recovered without *abortion*.

A preternatural inteſtinal diſcharge is uſually called *Diarrhœa*, but when mixed with blood, or attended with pain and fever, it is then termed a DYSENTERY or BLOODY FLUX: This diſeaſe may ariſe from obſtructed perſpiration, corrupted food, or ſtrong, draſtic purgatives; it may alſo be communicated by infection, or brought on by ſharp humors, which vellicate the interior

rior ſurface of the inteſtines, and determine the blood in too large a quantity to their tender veſſels.

There have been ſome few inſtances where blood was obſerved to proceed from the inteſtines, without any pain or loſs of ſtrength; and where the ſuppreſſion of this flux produced very dangerous ſymptoms, viz. vertigo, epilepſy, or even madneſs. It may therefore be reaſonably ſuppoſed, that ſuch evacuations were truly *critical*, and ſupplied the want of ſome other diſcharge; as that of bleeding piles, or perhaps the redundant blood, which is ſometimes carried off by the vagina, in the firſt months of pregnancy. Where the ſtools are ſanious and fœtid, attended with pain, fever, and teneſmus; it would be equally improper to put an early ſtop to the diſcharge.

It is not difficult to diſtinguiſh between the hæmorrhoidal flux, and dyſenteric blood; as the firſt is generally evacuated with inconſiderable pain, which is local and

confined to the rectum; whereas, in dyſentery, the pain is often very acute and univerſal: Beſides, in the hæmorrhoids; the blood is voided firſt, but in the other diſeaſe, it is either mixed with fœces, or comes away afterwards by the efforts of ſtraining.

When pain in the bowels is violent and excruciating, but not ſoon followed by ſtools, it may always be looked upon as a very *dangerous ſign*, which ſhews that the ſmall inteſtines are affected; and if the patient is not ſoon relieved, or particularly, if a difficulty of ſwallowing and hiccough come on; it denotes a *mortification*, and ſhews that death is at hand.

If the diſeaſe is long protracted, the inteſtines loſe their retentive and abſorbent power; and the food taken into the ſtomach inſtead of being converted into chyle, for the nouriſhment of the body, is hurried thro' the inflamed inteſtines; which being ſtripped of their mucus and excoriated, are affected with pain and *tormina*, from the acrimony

acrimony of their contents; Hence, as the blood is deprived of attemperating fluids, the ſecretion of *urine and perſpiration* becomes defective, and the patient will be nearly in the ſame ſituation as one after long faſting; conſequently, from the rancid acrimony prevailing in the body, this diſeaſe, towards its concluſion, like moſt others, will become of the putrid kind.

In this diſordered ſtate of the female habit, the *fœtus in utero* being robbed of its nouriſhment will die; and the *placentary veſſels*, which from thence derive their energy and abſorbing power, will now ſeparate from the womb, like blighted fruit in vegetables, and the patient will miſcarry.

Although the cauſe of this diſeaſe is different; the treatment of it is ſo ſimilar to that of the obſtinate diarrhœa attending *Child-Bed Fever*, that I ſhall not trouble the reader with a repetition of what is laid down on that ſubject; but only obſerve, in thoſe caſes where, from the patient's exceſſive

ceſſive pain, one might have been tempted to direct *opiates*, they have ſeldom procured laſting eaſe; eſpecially in the early ſtate of this diſorder; but on the contrary, often increaſe the oppreſſion at ſtomach and pain in the bowels, by leſſening their expulſive motion, and locking up thoſe corrupted, offending humors which ought to be carried off. Therefore, *laxative medicines* which paſs without much irritation, with rice-water for common drink, and the frequent uſe of emollient clyſters, or thoſe made with ſtarch, where the mucus of the inteſtines is abraded, will generally be found to afford relief.

Where the habit is plethoric, and much pain or fever attend; the cure ſhould commence with the loſs of blood, otherwiſe, it will not be abſolutely neceſſary. Gentle emetics, ſuch as the following, may then be given two or three times; by intervals of three or four days, as the ſtrength will permit:

℞. *Tart.*

℞

Tart. emet. gr. v.
Magneſs. alb. ʒ *ſs*
Aq. Alex. ſimp. ʒ *vi*
Oxymel. Scillet. ʒ *ſs fiat miſtura cujus ſumat Cochlearia duo, oblata occaſione.*

When the above medicine does not act as an emetic, it generally proves gently cathartic, or opens the cutaneous pores, which will be found greatly to aſſiſt in the cure, the ſympathy between the ſkin and bowels being very remarkable; as may be obſerved in conſumptive habits; for the habitual diarrhœa which then often attends is almoſt conſtantly better or worſe, as the colliquative ſweats are more or leſs profuſe. During the intervals, either of the following medicines may be given twice a-day, or oftener, according to the nature of the ſymptoms, or violence of the diſcharge; and if the patient is much harraſſed with pain, and can get no reſt; thirty or forty drops of *thebaic tincture* may be occaſionally added to the clyſter;

℞. *Pulv.*

℞.

Pulv. Rhei. gr. v.

Confect. cardiac. ℈ i fiat Bolus

℞.

Pulv. Gall. Alep.

------ *Nucis Moſchat. aa ℈ ſs*

Syr. e Mecon. q. ſ. ut fiat Bolus.

When this diſeaſe is not attended with pain or fever, it then often ariſes from weakneſs and relaxation of the bowels; and therefore, opiates and mild aſtringents may be directed: The following bolus, or ſomething of the like kind may be given twice a-day, with a tea-cup full of *aq. calcis*, to which, milk may be added in the quantity of a third part. A flannel ſhift ſhould alſo be worn next the ſkin, and the feet kept extremely warm.

℞.

Pulv. e Succin. c. gr. x.

Confect. cardiac. ℈ i fiat Bolus.

A lady in *Great Queen Street*, near twenty one years of age, and of a very delicate habit

of

of body; in the ſeventh month of pregnancy, was affected with a diarrhœa, from anxiety of mind. Though ſhe took opiates and other medicines, it continued almoſt without intermiſſion, 'till the middle of the eighth month; whenthe pain in her bowels became very violent, and blood with mucus was diſcharged with the ſtools: She was oppreſſed with great ſickneſs at ſtomach, and often threw up large quantities of ropy yellow phlegm, mixed with blood. She had very little appetite, or natural reſt; complained much of head-ach, and labored under a ſlow fever, and hectic heats, after taking the leaſt nouriſhment: Her pulſe was very languid and unequal; in ſhort, ſhe was reduced to the laſt degree of weakneſs.

Opiates, which I at firſt directed, ſcarcely procured her any ſleep or laſting eaſe, neither was the diarrhœa abated; being conſtantly diſturbed ſeven or eight times in the night, and during the twenty-four hours, had ſometimes ſixteen or eighteen motions,

motions, though at laſt, nothing was voided but a red, glairy ſubſtance, like flakes of half-putrified fleſh. I then preſcribed the following powders, one of which, ſhe took in rice-water twice a-day. The firſt powder made her ſick, but did not prove emetic, and although they always checked the looſeneſs, it never totally went off till within a few days after delivery; at which time ſhe was better in all reſpects, and free from pain:

℞.

Tart. emet. gr. ij

Pulv. Contrayer. c. ʒ *i ſedule contere & fiat pulvis in ſex partes dividendus.*

Starch clyſters were adminiſtered, and her common drink was rice-water, with addition of gum arabic, which agreed with her better than any thing elſe.

After delivery, the purging commenced with as much violence as ever, attended with excruciating pain in her bowels; the ſtools being very fœtid, and mixed with blood

blood as before. The next day, her pain was ſtill exceſſive, and the purging continued: Her nails began to turn black; ſhe was ſeized with a ſhivering fit, and immediately fell into *convulſions*, which laſted upwards of an hour; her body being agitated at different times with great violence. As the fit went off, and ſhe ſeemed better, I was not ſent for till the eighth day, at which time the purging returned, and the acute pain in her bowels threw her into another fit, which for a time, deprived her of all ſenſe. *October* the 17th, 1772, I directed ſtarch clyſters, with twenty drops of tinct. thebaic. to be given twice a-day, but in ſmall quantities and only milk warm; her body and limbs were wrapped in warm flannels, and as I obſerved that nothing relieved her ſo much as the powders ſhe had before taken, they were again repeated: She was better after the ſecond powder; both the pain and diarrhœa being ſenſibly abated. To avoid the danger

ger of relapſe, the powders were continued once or twice a-day for upwards of a week, and with care and proper nouriſhment, ſhe gradually recovered. Towards the end of the month, ſhe took the following draught night and morning for ten days:

℞.

Cort. peruv. Pulv. ℥ ſs

Fol. Roſar. rub. ſiec.

Cort. Cinn. aa ʒ i

Aq. bullient. ℥ x *poſt macerat. idon. cola.*

℞.

Hujus colat. ℥ iſs

Tinct. Japonic. ʒ ii

Confect. Alkerm. ʒ i *fiat hauſtus nocteq. mane exhibendus.*

This medicine aſſiſted her greatly, by ſtrengthening the bowels and increaſing her appetite, and at laſt ſhe was reſtored to her former ſtate of health; but from taking cold, or other accidental cauſes, is ſtill apt to be ſlightly affected with her former complaints.

The

THE late illuſtrious *Baron Van Swieten*, in the fifth and laſt volume of his *Commentaries*, a work which will render his name venerable to poſterity, remarks the following circumſtances, from his own experience, in what relates to the *Small-Pox*, viz. that the method of preparation uſually obſerved, before the artificial communication of that diſeaſe, may be omitted without danger: for at the *Orphan-houſe*, ſituated in the ſuburbs of *Vienna*; though there was not any variation in the diet of thoſe *inoculated*, from the reſt; no inconvenience was perceived to follow. But it is to be obſerved, that they all breathed the open air for the whole day, and ſlept in ſpacious and lofty bed-chambers, well perflated; hence aroſe the opinion which now prevails with ſome; that thoſe who labor under the *natural ſmall-pox* will recover as eaſily as others who are *inoculated*; without much regard to diet or medicine, provided that they ſufficiently enjoy the influence of *freſh air*.

According to the calculation of Dr. *Jurin*, ſeveral years ago, about one in ſix died by the natural ſmall pox; but of thoſe who were inoculated ſcarcely one in forty-eight. If the calculation is juſt, it appears that this deſtructive malady is rendered much milder by the method of treatment; ſince the number of thoſe who die, compared to thoſe who recover, is happily now very ſmall; even in the natural ſort, except they happen to *women with child*; or during an unhealthy ſeaſon of the year, where they become complicated with other *diſeaſes of the epidemic kind*: This favorable circumſtance, ſeems principally owing to the ſame treatment in the natural ſmall pox, as had been found ſo remarkably beneficial in thoſe communicated by inoculation, in which, ſcarcely *one in four hundred* now die.

Abſtemious, laxative diet, will be proper in the beginning; ſuch as that of roaſted apples, ripe oranges, or other cooling vegetables

tables of the ſolutive kind; alſo milk-pottage, or gruel ſweetened with honey.

In adults and thoſe of ſtrong habits, bleeding is generally neceſſary, being ſo far from retarding the eruption, that it appears more kindly after that evacuation. One of the following powders will then be proper, and may be given for two or three nights ſucceſſively, as occaſion requires:

℞

Calomel. ppt.

Sulph. præcipitat. aa gr. x

Tart. emetic gr. ij contere & fiat pulv. ſubtiliſs. in ſex partes dividend.

As ſoon as the eruption appears; if the inflammatory ſymptoms run high, and it ſeems to ruſh out too haſtily; the following cathartic draught ſhould immediately be given; eſpecially, if the previous uſe of the powders has not ſufficiently emptied the bowels;

℞

Infus. Sen. limoniat. ʒ *ij*

Mann. calab. ʒ *iij ſolv.*

Spt. Lavend. c. ʒ *i fiat hauſtus.*

During the ſymptoms of *eruptive fever*, the patient may drink as much *cold ſpring water* as her thirſt requires. At this time ſhe ought, by no means, to be confined to her bed, or a warm room, but ſhould walk gently about in the freſh, open air, taking care at her return, not to expoſe herſelf to it in a full ſtream, by ſitting between open doors or windows; and however ſtrange the practice might at firſt appear, it is now ſufficiently juſtified and confirmed by the conſtant and daily ſucceſs which attends it.

This method was firſt followed and recommended by *Sydenham*, who was often unmercifully cenſured for venturing to depart from the common practice; but being convinced by repeated experience of its ſalutary effect, and aiming at nothing ſo much as the public good, he ſubmitted to undeſerved

undeſerved reproaches, and thought himſelf amply repaid by the ſatisfaction ariſing from a conſcientious diſcharge of his duty, and the benevolent feelings of his own heart. But although the ſucceſs attending the preſent practice, is chiefly and originally owing to the ſagacious and incomparable *Sydenham*; ſurely, thoſe who have ſince been the means of boldly oppoſing popular errors, and permanently eſtabliſhing that method which contributes to the preſervation of thouſands, alſo deſerve their proper ſhare of praiſe.

By the liberal uſe of cold water, and the influence of *freſh air*, the ſick find themſelves revived in a moſt extraordinary manner; the frequency and fulneſs of the pulſe is obſerved to abate, thirſt grows leſs, and the ſymptomatic fever being almoſt extinguiſhed, a free perſpiration uſually ſucceeds, accompanied with a favorable eruption; after which, nothing more ſeems neceſſary, but only to forward the maturation of the puſtules, by ſupplying the patient

plentifully with milk and water, tea, or any thing of the like kind. At this time, the body ought to be kept cool and temperate by emollient clyſters and gentle laxatives, as the ſtate of the bowels may require.

Where the variolous eruption is complicated with a thick *milliary raſh*, it will be proper to leſſen the cooling regimen, and allow the patient white-wine whey, or weak broth, inſtead of cold fluids.

A *phrenzy* happening the third or fourth day after the eruption, is an alarming ſymptom. *Bleeding* and emollient clyſters may here be directed, and the patient ſhould be kept cool; *leeches* may be applied to her temples, and the following julep taken occaſionally; alſo barley water, with the addition of nitre, and vegetable acids for common drink.

℞.

Aq. font. puriſs. ℥ *vij*
Spt. nitri dulc. ʒ *iij*
Syr. Violar. ʒ *ſs fiat Julepum.*

Purples

Purples on the ſkin denote great danger, eſpecially if the pock is confluent; but where *bloody urine* is voided at the ſame time, it may be looked upon as a mortal ſign. Thoſe appearances, however, are not always the genuine ſymptoms of the diſeaſe, but often ariſe from heating regimen, and too great a degree of the circulating power. As the firſt may be owing to a putrid diſſolution of blood, they are much more dangerous than the other, and therefore, a diſtinction ſhould be made reſpecting their treatment. In thoſe of the *putrid kind*, antiſeptic medicines may be given; as a decoction of *bark*, with *elixir of vitriol*, or tincture of roſes; but in the *inflammatory ſort*, bleeding and laxatives with nitrous drinks may be directed.

Towards the height, about the eighth or ninth day, the ſecondary, putrid fever, which might otherwiſe then commence, is to be prevented by *purgatives*, if poſſible; therefore the ſame cathartic draught which

was given in the beginning, may be repeated every other day, or as the ſtrength will permit. *Opiates* are now proper, eſpecially after the operation of the purge, or when the patient is reſtleſs and in pain; but ſhould a dilirium or difficulty of breathing come on, they ſhould be wholly omitted.

Where the circulation flags, and the puſtules, inſtead of maturating and growing fuller, ſeem to flatten and look pale; *ſnake-root, ſaffron*, and ſuch like warm medicines, have been recommended; but as far as I have been able to obſerve, nothing has equalled the good effects of *James's powder*, or *emetic tartar*, given at firſt in ſuch quantity as to prove gently emetic, and afterwards, to act as an alterative only.

Some direct the limbs to be bliſtered at this time, and others do not ſcruple to give *cold water*; and indeed, conſidering its ſalutary effects in the beginning, ſuch a ſtep does not

not appear altogether exceptionable; particularly if it be earneſtly deſired by the patient.

Where the *ſalivation*, which uſually attends the confluent ſmall-pox, ſuddenly ſtops, the patient generally dies about the eleventh or twelfth day; eſpecially, if her face and hands do not then begin to ſwell, or where ſome other evacuation does not immediately follow. To encourage the ſpitting, the head may be held over the ſteam of warm water, and the following *gargariſm* may frequently be uſed:

℞

Aq. hordeat. ℥j

Sal. Ammon. crud. ʒij

Mell. ʒſs *fiat Gargariſma.*

Thoſe who are ſeized with *ſmall-pox* in the pregnant ſtate, have generally much more eaſy and expeditious labors than other women: However extraordinary this circumſtance may appear, I have ſeen it verified in many inſtances; and indeed, never

yet

yet found it otherwiſe in any caſe, where the labor was ſtrictly natural. It cannot be owing to the general weakneſs and relaxation of the body; in conſequence of which the child might be ſuppoſed to meet with leſs reſiſtance in the birth; for if ſo, the *uterus* would participate of the effect, and its expulſive force being diminiſhed, labor, inſtead of being ſooner over, would probably be rendered more tedious and lingering.

In the *miſcellan. natur. curios.* may be found ſeveral inſtances of women dying gravid, who were afterwards delivered of living children; *Horſtius* alſo relates a hiſtory of this kind; and *Raymond*, in his book *de ortu infantum coutra naturam*, is full of ſuch wonderful ſtories; which are fitter to entertain old women and nurſes, than rational men, yet the celebrated *Hoffman*, who does not ſeem behind hand with any of them in credulity, attempts ſeriouſly to account for ſuch extraordinary births, by the expanſion of putrid air, in the body of the fœtus.

Several

Several years ago, I was ſent for to a tradeſman's wife in *Mount-ſtreet, Berkley-ſquare*, who was taken with labor juſt at the height of the *ſmall-pox*; but being then at ſome diſtance, ſhe was delivered without any aſſiſtance, before I got there, and died the next day.

July the 12th 1767, *Ann Moody* was admitted into the *Weſtminſter Lying-In Hoſpital*, with ſymptoms of labor, and being otherwiſe very ill, was allowed to remain longer than uſual before delivery. The *ſmall-pox* appeared ſoon after admiſſion, but as the eruption was at firſt taken for a raſh, I was not acquainted with it until ſeveral days after: She was delivered of a dead child, about eight months old; the ninth day after the eruption, without much pain, or the uſual efforts of labor: The puſtules were of the confluent kind, and very thick on her ſkin, together with *purples*, for which a *decoction of bark* with *elixir of vitriol* was

was given, but without effect; for she died delirious the day after delivery.

January the 14th, 1768, *Esther Grace* was admitted into the *Hospital*, and delivered the third day after, of a living child, and at her full time: Though her pains were very inconsiderable, the birth was so quick and easy as not to require any kind of assistance: The next day the *small-pox* appeared. She was carefully removed in a chair the fifth day, and died three days after, being the eighth from the time of eruption. The child was nursed and taken care of in the Hospital, but died at eight days old; though without any eruption on its body, or other symptoms of small-pox.

February the 8th, 1770, I attended Mrs. *C——n*, at *Lambeth*, who had the *small-pox* in the fifth month of pregnancy: She was young, and of a strong, healthy constitution, but very full of eruption, which was rather of the confluent than distinct kind. As I was called to her in the beginning of the

disease,

diſeaſe, it was treated by the cooling regimen already mentioned; the weather being at the ſame time intenſely cold. The *ſpitting*, which had aſſiſted her greatly, began to diminiſh very much, a little after the height. About the twelfth or thirteenth day, ſhe was excceeding ill; the ſymptoms of the ſecondary fever were then violent, and ſhe was unable to ſpeak or ſwallow, except with great difficulty. Nothing at this time relieved ſo much as a *purging draught*, which ſhe took every other day; As her ſtrength and ſpirits were always better, and the bad ſymptoms evidently leſs violent on the days ſhe took the purge, I directed it to be made weaker, and repeated it for three days ſucceſſively. She now recovered daily, and at the end of three weeks, was able to take the air; but what appeared rather extraordinary, although ſhe had eſcaped abortion during the diſeaſe, ſhe miſcarried about a month after her firſt going abroad.

About

About the ſame time, viz. *February* the 24th, 1770, I was deſired to viſit Mrs. *P———r*, near the *Hoſpital*, who then labored under the ſmall pox, in the eighth month of pregnancy. Her midwife informed me ſhe was delivered ſoon after the eruption appeared, with ſo much precipitation, that the infant fell on the floor, as ſhe was aſſiſted in getting off the cloſe-ſtool. I ſaw her the ninth day from the eruption, which was large in quantity and of the worſt confluent kind; *Broad purple ſpots* almoſt every where overſpread that part of her ſkin where the puſtules were wanting; there were beſides, ſeveral ſmall veſicles on her breaſt filled with a yellowiſh fluid, like the ſerum of blood, and ſome with *bloody ichor*; but as her water came away involuntarily, I could not tell whether the urine was bloody or not. She was alſo delirious: Indeed, I never ſaw the diſeaſe attended with more malignant ſymptoms; and though there were no hopes of her

her recovery, I directed the following draught, and desired that the fluids she was able to swallow might be acidulated with lemon-juice;

℞

Decoct. Cort. Peruv. ʒ iſs

Extract. ejusd. moll. ℈ i

Elix. Vitriol. acid. gtt. xxx

Tinct. Cort. Peruv. ʒ iij

Confect. Alkerm. ʒ i *fiat haustus alternis horis exhibendus.*

She died the next day about twelve o'clock, being the tenth from the first appearance of the eruption.

October the 21st, 1772, *Elizabeth Lee* was delivered in the *Westminster Lying-in Hospital* of a living child, in the eighth month of pregnancy: As the *small-pox* appeared on her skin next day, she was carefully removed to her own apartment by her friends, where she recovered; the disease being mild, and the eruption of the distinct kind. The child was seized with it a fortnight after;

but

but I had no opportunity to inform myſelf whether it lived or not.

Notwithſtanding I never ſaw any inſtance where infants were born with *variolous eruption*, 'till the following caſe mentioned by Mr. *Waſtall* occurred; yet examples may be found in the *Philoſophical Tranſactions*, *Bartholin's Medical Epiſtles*, *&c.* where the body of the new-born infant has been found overſpread with puſtules; which, conſidering the intercourſe between the mother and it, during geſtation, is not to be wondered at.

Account of a Woman who had the Small-Pox during Pregnancy, and who ſeemed to have communicated that Diſeaſe to the Fœtus. By John Hunter, *Eſq. F. R. S. from* Mr. WASTALL's *Letter on the ſame ſubject.*

December 30, 1776, I was ſent for to Mrs. FORD, a healthy woman, about twenty-two years of age, who was pregnant with her firſt child. She had come out of the country about three months before. Soon after her arrival in town ſhe was ſeized with the

the ſmall pox, and had been under the care of Meſſieurs HAWKINS and GRANT, who have favoured me with the particulars here annexed.

I called upon her in the afternoon; ſhe complained of violent gripings in her bowels, darting down to the *pubes*. On examining I found the *os tincæ* a little dilated, with other ſymptoms of approaching labour. I ſent her an anodyne, ſpermaceti emulſion, and deſired to be called, if her pains increaſed. I was ſent for. The labour advanced very ſlowly; her pains were laſting and ſevere; ſhe was delivered of a dead child, with ſome difficulty.

Obſerving an eruption all over the body of the child, and ſeveral of the *puſtules* filled with matter, I examined them more particularly; and recollecting that Dr. LEAKE, in his Introductory Lecture to the Practice of Midwifery, had obſerved that it might be neceſſary to inquire, whether thoſe adults who are ſaid totally to eſcape the ſmall pox,

have not been previouſly affected with it in the womb; I ſent a note to Dr. LEAKE, and likewiſe to Dr. HUNTER, in hopes of aſcertaining a fact hitherto much doubted. Dr. LEAKE came the ſame evning, and ſaw the child. Dr. HUNTER came afterwards, with Mr. CRUICKSHANKS, and examined it; alſo Mr. JOHN HUNTER and Mr. FALCONER; who all concurred with me, that the eruption on the child was the ſmall pox. Dr. HUNTER thought the eruption ſo like the ſmall pox, that he could hardly doubt; but ſaid, that in all other caſes of the ſame kind, he had met with, the child *in utero* eſcaped the contagion.

It appears, from Mr. *Grant's* Notes, that the eruption appeared on Mrs. *Ford*, in the evening of the 8th December, and that ſhe was delivered the 31ſt, that is, twenty-three days after the appearance of the eruption.

A Caſe no leſs *curious* and *extraordinary*, I received from my *Pupil* Mr. *Head*, as follows:

To Dr. LEAKE.

London. Nov. 30, 1778.

SIR,

I ſome time ſince mentioned to you a caſe of *Inoculation* for the ſmall pox, which you thought ſingular. The hiſtory of it you have below, and may depend upon the facts, as the patient was my own.

I am, Sir,

With the greateſt reſpect,

Your moſt obedient ſervant,

ISAAC HEAD.

In the beginning of September, 1766, I was deſired to inoculate a boy of five years old, for the ſmall pox; the parents at the ſame time informing me they wiſhed it ſhould be performed in about a fortnight.

I had often thought it poſſible, that the variolous matter might be capable of raiſing an inflammation in the arm of a perſon who

had paſſed the ſmall pox, and that if it came to any degree of ſuppuration, might probably retain ſo much of the nature of ſmall pox, as to infect a perſon who never had the diſorder, by inoculating in the uſual manner.

To try this experiment, I inoculated myſelf in the arm. I was much pleaſed to find an inflammation come regularly on in as ſhort a ſpace of time, and with as much violence, as I had ever ſeen in thoſe who never paſſed the ſmall pox.

On the evening of the 6th day I ſuddenly felt the ſame kind of ſenſation, as if a ſpark of fire had got on the part. On examination, I found it prodigiouſly inflamed; there was a veſication about the ſize of a ſmall pea, and redneſs extended round it, under the cuticle, to the ſize of a ſixpence. On the ninth day it was full of pus, and the circle extended to the ſize of a crown. On the tenth day I inoculated the child from this puſtule, in the common way.

I have the pleaſure to aſſure you, that this child had the ſmall pox in as regular a manner, and with the uſual concomitant ſymptoms, as any I ever had under my care. He was very ſick for a day before the puſtules made their appearance, and had a great many of them. I inoculated *ſeven other children from this patient, and none of them failed having the ſmall pox.*

One of thoſe was ſo ill, that I was very apprehenſive he would have died, but fortunately he alſo recovered. I. HEAD.

An uncommon caſe is related by *Van Swieten*, as it happened under the obſervation of Dr. *Watſon* in *London*, viz. a woman who had been for ſome time pregnant, and who long before had the *ſmall-pox*, was very aſſiduous in attending her ſervant maid, who then laboured under that diſeaſe: In due time, ſhe was happily delivered, and brought forth a healthy female child, where *evident marks of its having had the eruption, appeared on the ſkin.* When this child's brother was

inoculated four years after, Dr. *Watſon* had leave from the parents, to inoculate her likewiſe; but the operation was attended with very different effects in thoſe different ſubjects; for the puſtules appeared in the boy, who ſoon happily recovered from the diſeaſe; but the girl after drooping two days, became very well again, and remained totally free from the eruption.

A caſe ſomething ſimilar to this is alſo mentioned by Dr. *Mead* in treating of the ſmall pox. He ſuppoſes that where the child is born before the perfect maturation of the puſtules in the mother, it will then more probably eſcape the diſeaſe; and that the danger ariſing to women at this time, who ſuffer abortion, will be in proportion to the loſs of blood, after the ſeparation of the *placenta* from the uterus; But there is not ſufficient reaſon to adopt this laſt opinion; for even what Dr. *Mead* himſelf afterwards aſſerts does not correſpond with it, viz. that the ſmall pox have generally been found

found moſt mild, when they ſucceed ſome conſiderable evacuation, whether natural or artificial.

Van Swieten informs us, that the celebrated *Boerhaave* attended a lady in the ſixth month of pregnancy, who labored under the worſt kind of *confluent ſmall pox*: notwithſtanding which, ſhe proceeded to the full period of her time, and was then delivered of a healthy male child, which had not the leaſt veſtige or appearance of the diſeaſe.

From the above extraordinary circumſtance, which was probably owing to the peculiar ſtructure of the *placenta* and its power to abſorb from the womb ſuch juices only as were ſalutary and nutritious; even when the whole maſs of the mother's blood was tainted with *variolous infection*; one would incline to think, that *hereditary diſeaſes* are providentially leſs frequent than they otherwiſe would have been, and that the perfection of animal fluid depends

depends more upon the ſecreting organ, than the general maſs from which they are ſtrained off. This property, with which the placenta ſeems endowed, is beautifully illuſtrated, by what may be ſeen in *vegetables*; where two plants of different qualities both draw their nouriſhment from the ſame earth; the one a *deadly poiſon*, the other friendly to the human ſyſtem, or perhaps an *antidote* to the former; and this is ſtill further exemplified in grafting branches of one tree into the ſtem of another; for the juices of the laſt, will from thence be ſo far diveſted of their natural qualities, by paſſing thro' different ſtrainers, as only to produce the ſame kind of fruit, with that of the tree, from which ſuch branches were taken,

THE END.

POSTSCRIPT.

The following Gentlemen, beſides many others, who either went abroad, or ſettled in different parts of the kingdom, which I cannot recollect, attended my LECTURES, at the times already mentioned; moſt of whom took *notes*, and therefore, to ſuch I refer for a confirmation of the facts mentioned in the *Introduction* to the preceding obſervations.

MR. C. M. Thode, Surgeon to the Empreſs of *Ruſſia*, *Peterſburgh.*

Mr. Crowder, *Leadenhall-ſtreet*, *London.*

Mr. John Blake, *Briſtol.*

Mr. William Slater, Houſe Apothecary to the Diſpenſary, for the relief of the Poor, *Alderſgate-ſtreet*, *London.*

Mr. Richard Newland, *Chicheſter*, *Suſſex.*

Mr. Edward Yale, *Catharine-ſtreet*, *London.*

Mr.

Mr. Robert Hobſon, *Bernard-Caſtle*, county of *Durham*.

Mr. Charles Lightfoot, *Whitby*, *Yorkſhire*.

Mr. William Cartwright, *Wenleck*, *Salop*.

Mr. Joſeph Dawſon, *Eaſt-Indies*.

Mr. Thomas Tubb, *Lambourn*, *Berkſhire*.

Mr. Thomas Parkinſon, *Kirkham*, *Lancaſhire*.

Mr. William Harffy, *Caſtle-ſtreet*, *Leiceſter-fields*.

Mr. William Sexton, *Thame*, *Oxfordſhire*.

Mr. John Cauſer, Houſe Surgeon to St. *George's Hoſpital*, 1771.

Mr. Robert Pope, *Staines*, *Middleſex*.

Mr. Lewis Poignand, *Duke-ſtreet*, *Weſtminſter*.

Mr. Thomas Hammond, *Little Newport-ſtreet*, *Newport Market*.

Mr. Jeremiah Wilkinſon, *Scarborough*.

Mr. John Marſh, *Half-Moon-ſtreet*, *Piccadilly*.

Mr. J. Rackham, *Bungay*, *Suffolk*.

Mr. Thomas Inman, *St. Oſyth*, *Eſſex*.

Mr. Edward Weeks, *Weſtfield*, *Suſſex*.

Mr.

Mr. H. Dickinſon, *Cecil-ſtreet. Strand.*

Mr. Edward Ford, *Briſtol.*

Mr. James Bromley, *Rocheſter, Kent.*

Mr. P. Weaver, *Hermitage, Tower-Hill.*

Mr. D. Raven, *Hatfield Peveral, Eſſex.*

Mr. Thomas Bredall, *Mattocks-ſtreet, London.*

Mr. J. Dutton, *Mancheſter.*

Mr. Thomas Brittain, *Rugley, Staffordſhire.*

Mr. Thomas Parker, *Glouceſter.*

Mr. Thomas Owen, *Rye, Suſſex.*

Mr. James Scaife, *Carliſle, Cumberland.*

Mr. William Younge, *Shiffnall, Shropſhire.*

Mr. James Bumpſtead, *Caſtle Heddington, Eſſex.*

Mr. William Young, *Georgia, America.*

Mr. ——— Druitt, *Winburn, Dorſetſhire.*

Mr. Thomas Shute, *Briſtol.*

Mr. James Travers, *Military Hoſpital, Granada.*

Dr. William Moore, *Brook-ſtreet.*

Mr. Thomas Vigur's, *Leoſtoffe, Suffolk.*

Mr. Henry Bickerſteth, *Kirbylonſdale, Weſtmoreland.*

Mr.

POSTSCRIPT.

Mr. Edward Horler, *Tooting, Surry.*

Mr. ——— Wilſon, jun. *Henrietta-ſtreet, Covent Garden.*

Mr. Charles Chaſmore, *Epſom, Surry.*

Mr. Robert Turner, *Enfield.*

Mr. John Manning, } *Boſton, New-England.*
Mr. Joſeph Lord, }

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